

## Welcome to the Product Education Showcase!

*Presented in cooperation with*



### Bionic Ears for Kids: AB Technology and Resources for Children

Carissa Moeggenberg, M.A., CCC-A

Amy Hansen, M.A., Managing Editor,  
SpeechPathology.com

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## Live Product Education Showcase

### ATTENTION! SOUND CHECK!

Unable to hear anyone speaking at this time?

Please contact SpeechPathology.com for technical support at  
**800 242 5183**

### TECHNICAL SUPPORT

Need technical support during event?

Please contact SpeechPathology.com for technical support at  
**800 242 5183**

Submit a question using the Chat Pod - please include your phone number.

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## Earning CEUs

### EARNING CEUS

- Must be logged in for full-time requirement
- Must pass short multiple-choice exam

**Post-event email within 24 hours regarding the CEU exam (ceus@speechpathology.com)**

- Click on the "Start e-Learning Here!" button on the SP home page and login.
- Must pass exam within 7 days from today
- Two opportunities to pass the exam

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## Sending Questions



Type question or comment  
and click the send button

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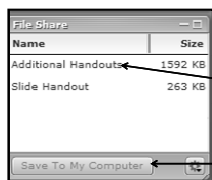
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## Download Handouts



Click to highlight handout

Click Save to My Computer

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### Bionic Ears for Kids: AB Technology and Resources for Children



Carissa Moeggenberg, MA, CCC-A  
Manager, Rehab Programs

AdvancedBionics.com

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- Review of the Hearing Loss Facts
- Introduction to The Harmony HiResolution Bionic Ear System
- Resources and Services from AB

AdvancedBionics.com

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### Who is AB?

Advanced Bionics® provides cochlear implants to children and adults around the world. We are a lifetime partner to cochlear implant recipients, families and professionals.



AdvancedBionics.com

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### Hearing Loss in Children

Hearing loss is the #1 birth defect in the U.S.



33 babies a day are born with a hearing loss.

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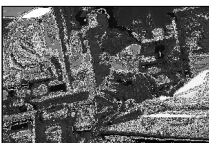
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## Impact of Hearing Loss

A severe to profound hearing loss will impact a child's oral speech, language and reading skills.




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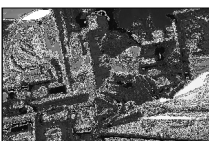
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## Hearing Needs of Children

By age 3, a child will need to hear approximately 30,000 words each day to develop the language needed for success in school\*.



\*Hart B, Risley TR (1995) *Meaningful Differences in Everyday Experience of Young American Children*.

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## How can technology help?

Access to sound through cochlear implants can provide opportunities.....




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### Who is a Candidate for a Cochlear Implant?

**Adults (18 years+)**

- Severe to Profound, bilateral sensorineural hearing loss
- Less than 50% speech recognition with hearing aids on open-set sentence recognition

**Children (12 months - 2 years)**

- Profound, bilateral sensorineural deafness ( $\geq 90$  dB HL)
- Little or no benefit from hearing aids

**Children (2 years - 17 years)**

- Severe to Profound, bilateral sensorineural deafness
- Little or no benefit from hearing aids

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### How Does a Cochlear Implant Work?

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### Children Hearing their BEST!



.....on the playground



.....in the classroom



.....on the phone



.....at a recital

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## It's What's Inside that Counts

*All cochlear implant systems are designed to help children hear...but only AB's superior technology helps children hear their best in the real world.*



- Processor size will not help children hear better
- It's **what is inside** the implant that allows children to hear their best
- AB has focused on developing and delivering **superior internal technology** to best replicate normal hearing and maintain the most headroom for **performance upgrades** without additional surgery

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## Harmony Features

### Sleek Headpiece Design

- Easy to wear, small and efficient
- Ultra-light for comfort, convenience, and discretion
- Multiple, interchangeable, snap-on sound caps and covers

### User-Friendly Controls

- Volume wheel provides direct settings for parents or teachers
- Programs are changed using a three-position program switch

### Built-In Diagnostics

- A green light indicates that the processor is processing sound and is working correctly
- An orange light indicates there is low battery power or that the processor needs attention
- A red light indicates the processor is unable to lock to your implant or that there may be a problem with the processor

### Water Resistance—Unsurpassed

- Internal electronics are designed with a waterproof barrier

### Convenient Power Options

- Easy-to-change power options slide on quickly
- PowerCap Slim, PowerCap Plus, off the ear PowerCap Adapter

### Simple, Easy Connections

- One-touch interface allows the network to transmit data in real-time or to be manually initiated
- Audio network options easily snap on and off, saving your time and fees

\*After approval from the United States




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## Harmony Performance Advantage

- **HiResolution® (HiRes®) Sound**—the clearest, most accurate sound for your patients to hear their best in quiet, in noise and for music
- **AutoSound™**—automatically adapts to your patients surroundings, just like a normal-hearing ear, so there's no fumbling with dials or remotes to continually make adjustments for changing sound environments- they can **set it and forget it!**
- **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




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## Harmony Advantage- Hear Your Best in the Real World

Harmony gives you clear and accurate sound; the closest to normal hearing of any cochlear implant.

**THE HARMONY ADVANTAGE**  
HiResolution™ (Hilite) Sound—it's All in the Details



Other systems without Hilite don't capture the timbre/texture of sound or deliver the resolution you need to hear the details.



Harmony with Hilite captures the most complete window of sound and delivers the highest resolution. The higher the resolution, the more detail you hear.

Harmony with Hilite joins a more complete hearing picture, so you hear your world the way it actually sounds.

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## Harmony Advantage- Hear Effortlessly

**AutoSound™:**

- Captures the widest range of sound
- Optimizes hearing for every environment
- No fumbling with controls to hear your best

Other systems capture a narrow range of sounds, so some of the sound picture is left out.

Harmony with AutoSound™ technology automatically captures a wider range of sounds, so you hear the big picture.

AutoSound captures the widest range of sound of any cochlear implant system

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## Harmony Advantage- The Most Natural Hearing

**Only Harmony has the T-Mic**






Wireless...  
Hands-Free...  
Hassle-Free Hearing

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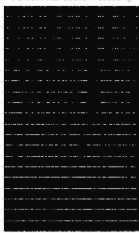
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## Real World Listening



Conventional Sound Processing



HiRes120



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## Music Matters

*Harmony – Designed with Music in Mind!*

**The National Association for Music Education states that music education benefits children in four key areas.<sup>3</sup>**

**Success in Developing Intelligence**  
Studies show that young children who take music lessons or master a musical instrument have better memory, increased IQ, and an improved ability with spoken language.

**Success in School and Learning**  
Students involved in music education are more likely to experience higher graduation rates and score higher on standardized tests.

**Success in Society**  
Children who have music as a part of their lives are more likely to develop a greater sense of culture, and a deeper understanding and appreciation of the world around them.

**Success in Life**  
Studies suggest that music education helps children develop much-needed creative thinking, problem-solving and communication skills, have increased self-esteem, and have a higher earning potential as adults.

<sup>3</sup> MENC—The National Association for Music Education: Why Music Education? 2007

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## Improving Performance

Independent studies conducted by leading research scientists show that recipients will **hear their best with AB** in quiet, noise, on the phone, and for developing language<sup>1-4</sup>—the everyday listening experiences where your hearing really matters.


...in the classroom




...on the playground



...at a concert



...on the phone



1. Spahr A, Dorman MF, Loiselle LH. 2007. 2. Haumann S, Büchner A, Lenarz Th. 2008. 3. Gifford R. 2008. 4. Wolfe J, Mears A. 2008.

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## Total System Reliability

AB's external processor has the lowest average 3-month failure rate of only 0.95%



### Why Reliability Matters

- You'll also experience fewer interruptions in hearing because of a broken external sound processor.
- You won't miss the special details of life

Advanced Bionics Consumer Reliability Report, 2009.

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## A Child's Life in Surround Sound

- Hear better in noisy environments
- Develop more natural speech
- "Localize" to sound more easily
- Listen with less effort



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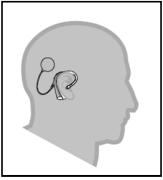
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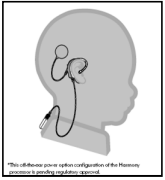
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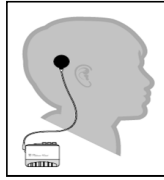
## Flexible Wearing Options



All on-the-ear



Some on-the-ear\*



None on-the-ear

\*Pending FDA approval

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## EARHOOKS


*Sized just right for little ears.....*

**T-Mic™ Microphone** — Puts the microphone in the most optimal listening position possible. Provides effortless access to phones, MP3 players and other popular consumer electronic devices. Improves hearing in noisy environments with enhanced directional hearing.

**iConnect™** — Provides cable-free connections to commonly used FM systems without interfering with head movements. Available in small and standard sizes.

**Direct Connect™** — Connect to a variety of assistive listening devices using a detachable cable.

**Standard Earhook** — All Harmony earhooks are available in standard and small sizes to comfortably fit your child's ear.



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## Colors to Express Themselves

*Show off your child's TRUE COLORS.....*




Harmony Color Caps and Covers

Skinit® for Harmony Processors

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## AB's Kinder Series

*Accessories designed to Help Little Ears HEAR BIG!*



Bionic Buddy Critter Clip



Kinder Clip™



Snuggie™



Bilateral Harness



Single Harness



Microphone Tester Earphones



Control Panel Cover

\*\* Under development

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## Mascots to Love!



*Meet Bionic Buddy and Melody-designed to comfort young children as they go through the process of receiving a cochlear implant.*

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## Where can I find support?



.....at school



.....at your CI center



.....at AB!

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## Big HELP for Little Ears!

Resources to support children with hearing loss:



- The Bionic Ear Association
- The Listening Room
- Tools for Schools
- Tune Ups
- Online Education

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## The Bionic Ear Association

- BEA Support Center
  - 866-844-HEAR
  - [Hear@AdvancedBionics.com](mailto:Hear@AdvancedBionics.com)
- Hearing Journey Online Community
  - [www.HearingJourney.com](http://www.HearingJourney.com)
- Connect with a Mentor Online
  - [www.BionicEar.com/CTM](http://www.BionicEar.com/CTM)




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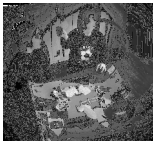
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## The Listening Room®

- A one of a kind website that offers families and professionals a surplus of interactive activities to support the development of speech, language and listening skills in children with hearing loss at any age
- Developed by Dave Sindrey, MCISc., Cert AVT® and Advanced Bionics



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## The Listening Room®

Access the Listening Room at [www.hearingjourney.com](http://www.hearingjourney.com) !

↑  
Infants & Toddlers

↑  
Kids

↑  
Teens & Adults

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## Tools for Schools

- A resource for parents, therapists and educators who support children with cochlear implants.
- This resource provides tools to help a child be successful in the classroom
  - Product Information
  - Product Troubleshooting
  - Educational management
  - OnLine Education Courses
  - Workshops
  - On-call and online support
    - 866-844-HEAR
    - [ToolsForSchools@advancedbionics.com](mailto:ToolsForSchools@advancedbionics.com)




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## Tune Ups

- Developed by Chris Barton and Amy Robbins
- Appropriate for preschool to early school age
- Weaves music together with spoken language into a therapy session
- The goal is to elicit verbal responses and encourage spoken language
- Available for purchase - \$19.95 USD
  - Contact customer service: 877-829-0026




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## Online Education

- Learn from the Experts
- Over **Fifty** courses
  - Rehabilitation
  - Cochlear Implant Management
  - Cochlear Implant Technology
- Free and available when you are!




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## Summary

- Impact of hearing loss on children
- AB offers technology and resources to support you
- Learn more visit [www.BionicEar.com](http://www.BionicEar.com)
- Get involved!



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## How Can YOU Get Involved?

- Share the Listening Room with Colleagues and Families
  - [www.hearingjourney.com](http://www.hearingjourney.com)
- Join Tools For Schools
  - [www.BionicEar.com](http://www.BionicEar.com)
- Spread the Word about Cochlear Implants
  - Who is a candidate
  - Find support at [www.BionicEar.com](http://www.BionicEar.com)

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