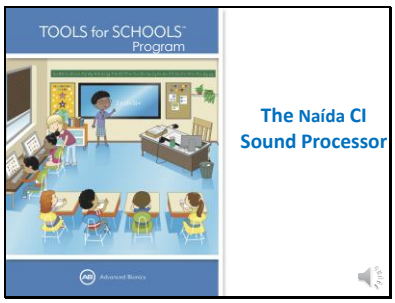
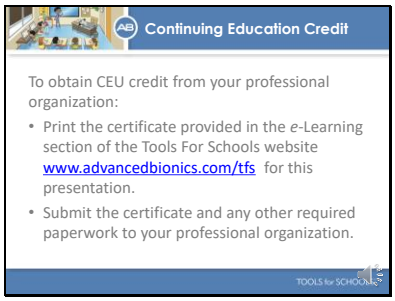
Slide 1



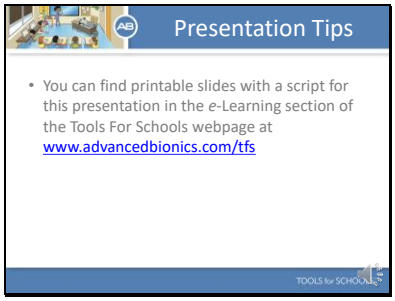
Hello and thanks for joining us to learn more about cochlear implants. Today's presentation discusses care and maintenance of the Naida processor as well as the technological innovations provided by the Naida processor that allow recipients to hear their best in every environment. It is the second part of a two-part presentation titled Overview of the Naida Processor.

Slide 2



If you would like to submit for continuing education credits to your professional organization please print out the certificate of completion provided at the TFS website under E-Learning for this presentation. Submit the certificate with any other required information to your professional organization.

Slide 3

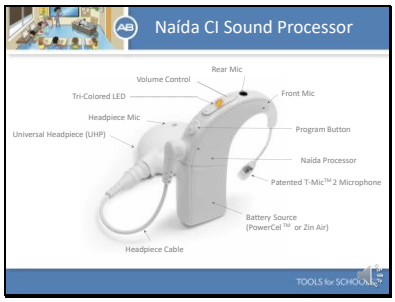


If you would like to print out slides and take notes, or print out a script so you can follow along with the audio, please visit the companion materials section for this presentation in the e-learning section of the TFS webpage.

Slide 4

AB is dedicated to helping people with hearing loss hear their best.
Partnering with Phonak has allowed AB to offer unique technological advances to help people with hearing loss hear better in the most challenging listening situations.
From offering technologies that grow with children as they learn to listen and make sense of the world of sound…
To helping adults get back to connecting and communicating with the important people in their lives, AB is dedicated to providing the unique hearing technologies that can help recipients achieve their hearing goals.

Slide 5



Let's start by quickly reviewing the components of the Naida CI.

- Here is the Naida Processor.
- At the bottom of the processor is the power source. Here you see one of the PowerCel rechargeable batteries.
- Here you can see the Universal Headpiece (UHP) and the headpiece cable.
- The round button located near where the UHP attaches to the processor is the Program Button.
- The Volume Control is located directly above.
- You can see here that the Naida's LED is located in the center of the volume control.
- There are also several microphones on the Naida processor. The front and rear microphone as well as the T-Mic and headpiece mic.

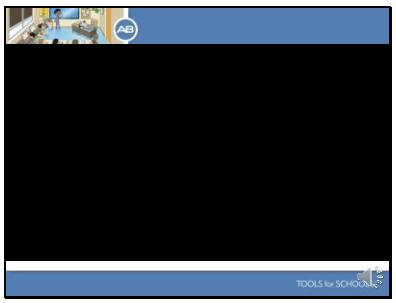
Slide 6

Here are the topics we are going to cover today. Many school professionals feel overwhelmed at the thought of helping students to care for and maintain their cochlear implants. It is really quite simple. Let's review the information that is most important for you to know.

Slide 7

Store any extra equipment that is kept at school, including batteries, in a Zephyr Dry and Store overnight. A Zephyr Dry & Store is an electrical appliance that utilizes warm, moving air and a desiccant, to keep equipment dry. If you do not have a Dry and Store be sure to keep any extra equipment in a sealed container or even a Ziploc bag.

Slide 8



Here is a short video on the Zepher Dry and Store.

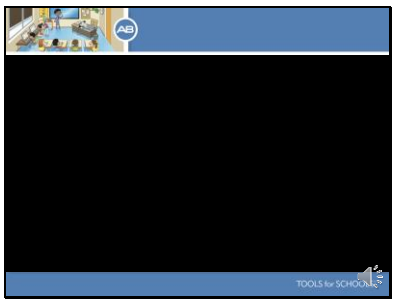
Slide 9

The contact points on the Naida where the batteries connect should be cleaned every so often to remove build up and debris. This is easily done using compressed air. Additionally, to keep build up from accumulating on the battery contacts You should also use PowerCel battery covers when batteries are not in use. These can be ordered from Advanced Bionics.

Slide 10

Let's watch a short video about cleaning the contact.

Slide 11

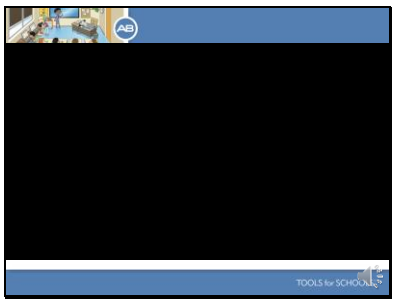


And here is a short video that shows you how to use the Powered covers.

Slide 12

Occasionally you may need to change out a headpiece cable or the headpiece. It is important to handle these parts appropriately so they do not break.

Slide 13



Here is a video that shows you the proper way to change the cable and headpiece.

Slide 14

Now let's move on and talk about what is truly my most favorite topic to cover when speaking about Advanced Bionics. The innovative technology the AB system offers.

Slide 15

The AB system offers the most advanced and innovative technology available for cochlear implant users. We continue to push the envelope so our recipients can hear their best in every environment. Our goal for improved hearing goes way beyond our recipients being able to hear speech in quiet. We want our recipients to be out there doing everything without any limitations.

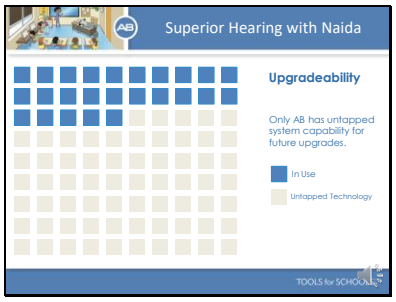
Slide 16

Things like succeeding in school, socializing with friends, singing along with friends, playing sports, excelling in the classroom, enjoying music, talking on the phone, and laughing with others.

Slide 17

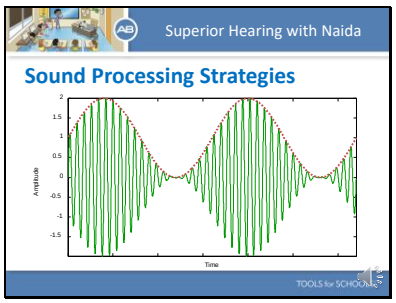
My goal for this section of the presentation is to break down some of the technological terms you may hear with easy to understand explanations so you feel comfortable talking about the technology and managing your student's Naida's. Here are the topics we are going to cover. Let's begin by discussing the advanced features of the Advanced Bionics system.

Slide 18



The core of our system is the upgradeability of the internal device. The internal device a child receives today has the capacity for future technologies without the need for additional surgery.
That translates into children being able to hear their best – whether it's listening to music, playing with a group of friends, or being on the soccer team. Because of our platform, we have plenty of room for continued development to ensure our patients hear their best in a variety of environments.

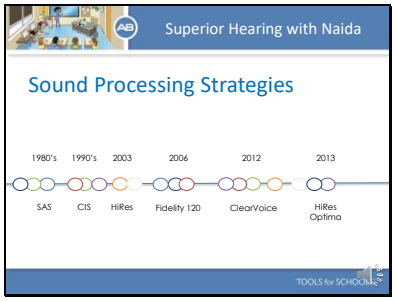
Slide 19



One of the ways we deliver upgrades is through our sound processing strategies. Sound processing strategies are a set of rules and processes for converting the incoming sound signal into electrical pulse patterns. These pulse patterns are then delivered to the cochlea via the implanted electrode where they are interpreted in the brain as sound.

The concept of a sound processing strategy is basic, but not all sound processing strategies are alike. A sound processing strategy has much information to convey, loudness cues, timing cues, tonality, and much more. How well a strategy can do this depends on the technology and flexibility of both the internal device and sound processor.

Slide 20



This slide shows you the various sound processing strategies that AB has offered over the years. Each one gave our recipients better access to the details of sound. One way to think of it is analog TV vs HI definition. I know when I see something on TV that is not in HiDef I am struck by how fuzzy and low quality the image is. The difference between the analog image and the HiDef image is the amount of fine detail included in the image. This concept can be carried over to think about sound processing strategies. Each new strategy has offered amazing improvements in the amount of detail provided to our users.

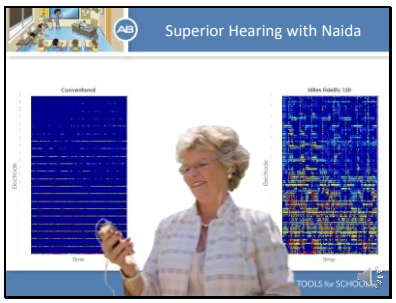
Slide 21

So why does having this level of detail matter for our implant users?

Slide 22

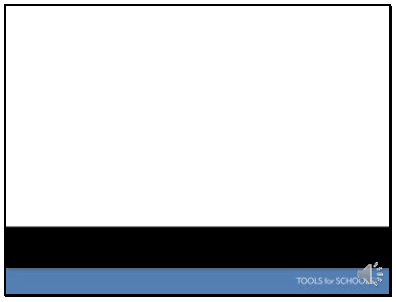
Well, the primary goals for the AB sound strategies are to provide the highest degree of fidelity to the implant recipient. We want the output of the CI system to represent as close as possible the sound input. This allows recipients to hear optimally in every environment they encounter.

Slide 23



I think this next slide gives you a great way to understand this concept better. First you will hear a song played through a conventional strategy. Next you will hear the same song played through our HiRes Fidelity 120 strategy. Let's listen. Recipients say that a big area of improvement with upgrades in sound processing strategies has been music. It is hard to make out what the song is in the first example. But with the HiRes Fidelity, in the second example, you can hear how much fuller the details of the sound are. As you can see updates in technology are critical in giving our recipients enhanced sound quality. This is why the upgradeability of our platform is so critical.

Slide 24



This video also does a great job explaining our sound processing strategies.

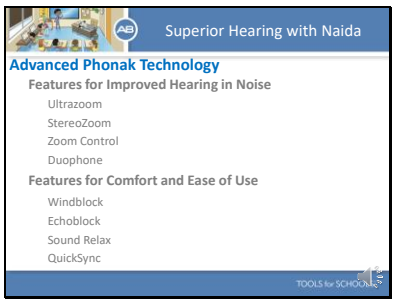
Slide 25

Another advanced feature offered by the AB system is AutoSound. AutoSound™ OS technology automatically analyzes the level of sound in the environment and automatically adjusts so users hear their best. Whether the recipient is in quiet, noise, or listening to music AutoSound OS technology will automatically adapt and provide optimal hearing

Slide 26

As I mentioned at the very beginning of this presentations, AB has partnered with Phonak is now a member of the Sonova family. Through this partnership we are now able to collaborate with engineers at Phonak to combine strategies and solutions to meet every recipient's hearing needs.
Additionally, as many of you may know. Phonak hearing aids are the most widely used hearing aids for individuals with severe to profound hearing loss. Now, because of our partnership with Phonak, people can make a seamless transition to using a CI with familiar features and accessories they may already be familiar with.

Slide 27

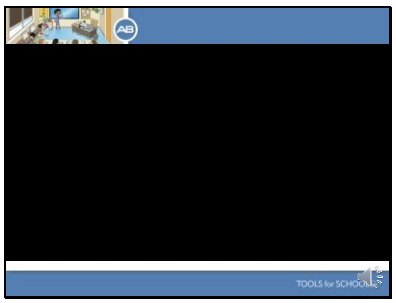


For this next part of the presentation we will discuss some of the features from Phonak that we have been able to incorporate into the Naida processor. We will hear directly from one user, Deb S. about how these features have made an amazing difference in her ability to hear in various situations. Please note that these features are programmed by the student's audiologist and are dependent on the student's age and ability to use their processor independently.

Slide 28

UltraZoom zooms in on voices of people facing recipient, while noise from the side and back is reduced. For students, it is ideal for use in the classroom when the main speaker is in front.

Slide 29



In this next video you will meet Deb, a Naida user. Here she discusses the benefits of UltraZoom.

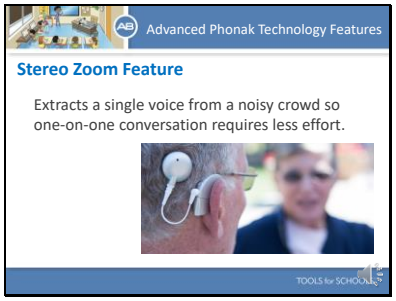
00:00:07.540
I was in a restaurant with some of my friends and so I put it on the UltraZoom, and it just

00:00:08.040 --> 00:00:14.240
filtered out all the noise around me and I was able to hear the people that were directly across from me.

00:00:14.840 --> 00:00:18.080
It was so much better. I probably was hearing better than they were hearing in the restaurant.

00:00:18.400 --> 00:00:19.960
And it was great, I loved it!

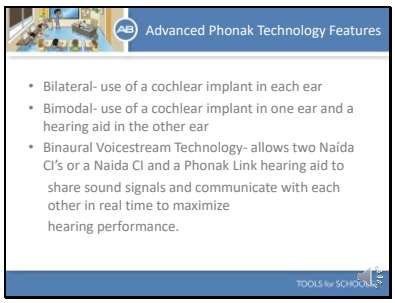
Slide 30



With the launch of the Naída CI Q90 we introduced another incredible option, Stereo Zoom. This feature is specifically for our bilateral and now bimodal recipients and helps recipients to hear a speaker located in front of them better in excessive noise.

.

Slide 31

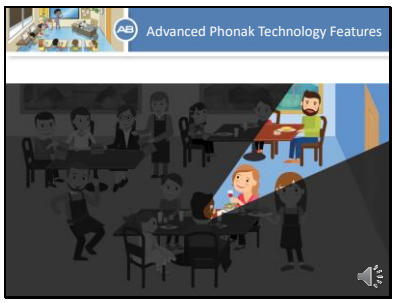


Let me step back a moment and define the terms bilateral and bimodal:
Bilateral is use of a CI In each ear.
Bimodal is use of a CI in one ear and HA in the other. One other term that is helpful to understand is Binaural Voicestream Technology. Binaural Voicestream Technology allows the two devices a recipient is wearing to communicate, and share sound signals with one another.

Slide 32

So, getting back to StereoZoom. Imagine a child who uses two Naida's is at a loud restaurant with their family but wants to talk with their mom about the school day. In this type of noisy environment it is often a struggle even for those of use with normal hearing. Here is how StereoZoom can help. The 2 Naida processors will work together to create a narrow focus for better hearing. Think of it like the processors are creating an area of focus on the mom and reducing the surrounding noise.

Slide 33



This graphic gives us a nice visual image of what Stereo Zoom is able to do. Imagine all the benefits of this technology. It especially makes me think of two friends trying to talk in the noisy cafeteria.