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Experiencing Breakthroughs in Cochlear Implant Technology

Tina Childress

TINA CHILDRESS: Good morning, everyone. It's nice to see some friendly faces and some new faces today. I'm excited to talk to you. I'm a former educational audiologist. I lost my hearing due to autoimmune inner ear disease over a period of about nine months, and that happened when I was 28 years old, so I really am a late-deafened adult. I call ALDA my mother ship. I never attended a national ALDA conference before, so it's great to be around other people who have experienced the same things that I've gone through. I wore hearing aids. I have a cochlear implant. There are a lot of things that we share in common. I am a pretty proficient signer. I can turn off my voice and sign with the best of them. I can also function as hard of hearing.

As a late-deafened adult, at 28 years old, most of my experiences were as a hearing person. Sometimes people ask me which are you? Where do you put yourself? Are you deaf? Are you hard-of-hearing? Are you hearing? What do you think my answer is? Yes, I am all three. That's how I identify myself. I don't identify myself so much as being one as being all.

Bilateral implants are happening. We're seeing it more and more. It's very exciting. We're seeing a lot of benefits. I'd like to talk to you briefly about some of the research findings. The cochlear implant companies are pushing each other. They are all jockeying for position. What I want to talk to you about today also is a new speech processing strategy that is just phenomenal.

Music. For a lot of us who are late-deafened, music is something that's been hard to get back through amplification, whether it's hearing aids or cochlear implants. I'm going to try to give you very briefly some strategies, talk to you about some ways to understand music. And then, last, but definitely not least, I will have two people come up and talk

about their experiences. One is a bilateral user. The other has one cochlear implant, but they both use the new processing strategy that I'll be talking about.

Bilateral implantation. What are we seeing in the literature? Why are bilateral implants so good? They give us cues for localization. This is my daughter, Maddy (indicates projector screen). She is lying in the bathtub screaming. When I had just one implant, and she was growing up, she would call my name and I had no idea where she was because I could not localize. Now that I have two, I can tell if she is getting in trouble in the bathroom, if she is getting in trouble in the kitchen, or if she is getting in trouble in the lower level. I'm able to find her.

Your brain uses the signal from both sides to get that information. Sometimes people use the analogy of having an eye patch. If any of you have ever worn an eye patch, you're not allowed to drive when using it. Why? You need both your eyes to be able to see depth. Well, with your ears, you need two ears to figure out where things are in space.

The head shadow effect. If this interpreter (indicates person to the right) were going to be talking to me right now and I didn't have an implant on my right side, the sound would have to travel to the other side to get to my brain. And that's called the head shadow effect. And the head shadow effect has some advantages and disadvantages. Obviously, if she were talking to me on a non-implanted side, I might find myself turning so I could lipread her to get more information. But in situations like noise, your brain uses this head shadow effect to tell where noise is versus where the important speech sounds are.

When you are bilateral you don't have to turn. You can hear on both sides. Some of you may have heard of the term binaural squelch. A simple way to think about it, the brain uses information to help pick out the speech signal from noise. But once again, it takes two sides. And that's what binaural squelch is. So if you are in a situation where there are multiple people talking or if it's noisy, your brain uses this concept to pick out the important information.

I wanted to put up my scores. When we talk about listening in noise, we all hear "Oh, you hear better in noise when you have two versus one cochlear implant." I was shocked. This was three months after I got my second cochlear implant. Let's go down to that middle row, where it says "HINT in noise." The HINT is just a sentence test. I had to repeat a sentence. With my first implant in noise, I got 74 percent correct. With my second implant, my new one, I got 52 percent. But with both of my implants together, I got 92 percent correct. Why? Because my brain was able to use binaural squelch and the head shadow effect, to get information from both sides.

How many of you are using hearing aids? (Showing of hands) When you wear two hearing aids, let's say one battery dies, do you find yourself turning up the volume on [the other] hearing aid when one of them dies sometimes? That's because it seems louder when you have two. And when you just have the one, you feel like you have to

turn it up to get more volume. That's called binaural summation. It's the same thing with cochlear implants. When I had one implant, my levels were higher. But now that I have two, my brain takes information from both sides and it doesn't have to be as loud. It's allowing me to hear quieter things. For instance, this is another picture of my daughter building a snowman (indicates projection screen). I remember this day very clearly, because she was in the backyard and I was in the front yard shoveling, and she was calling me and I could hear her all the way around the house because I could hear things that were quieter or that were farther away.

When we look at candidacy, it used to be the question was: "Should I get a cochlear implant?" You know what people are asking now? "Should I get cochlear implants?" "Should I get two?" That's called simultaneous bilateral implantation. So when they go in to consider getting a cochlear implant, they don't always just consider one, now they think about maybe I should get two at the same time. Or let's say you already have a cochlear implant, how many people just have one cochlear implant right now? (Showing of hands) Okay. How many of you are considering getting a second cochlear implant? (Showing of hands) Second cochlear implant? Yes?

AUDIENCE: Insurance doesn't cover two implants.

TINA CHILDRESS: The question was does insurance cover second implants? What I would suggest is talking to your cochlear implant center, because they are familiar with which insurance companies do cover second implants. There is not like a general rule. And you know what? The policies are changing all the time. People that used to get denied are now being approved. But your best source is your cochlear implant center, because they would know. Yes?

AUDIENCE: Do cochlear implants need to be replaced?

TINA CHILDRESS: Do they need to be replaced?

AUDIENCE: Every five years or whatever?

TINA CHILDRESS: The internal part, the part that is in your head, is designed to last a long, long time. I think all of the companies have a warranty on the internal part for ten years. And then, if for some reason it stopped working after ten years, you would need to talk to your implant center. But I know that sometimes insurance will help pay for that, too. So it's designed to last for a long time.

AUDIENCE: Medicare?

TINA CHILDRESS: Medicare is covering cochlear implants, yes.

AUDIENCE: I have never had binaural hearing in my life. My left ear was born totally deaf, so I don't know whether a bilateral cochlear implant would work for me or not.

TINA CHILDRESS: That would be another question for your cochlear implant center. They would need to do tests to see if the ear that has been deaf for a long time would qualify for a cochlear implant. I don't know what your cochlea looks like or your hearing nerve, so that is not something that I can answer. Your implant center would be the best people to check. Can we hold onto questions until the end so that I can get through? Is that okay? Thank you.

Here is some research and some graphs showing that even in quiet, there are advantages with two cochlear implants versus just one. For instance, you can see how much higher the scores are once you have two versus one. (indicates chart) The other thing this shows is three months with HiRes. HiRes is the name of a recent speech coding strategy. CIS is one of our conventional strategies. So, in addition to having positive effects from having two implants, we're also seeing improvements in speech processing strategies.

In terms of hearing in noise, what we're seeing on average is that when you have two ears listening, you're getting an improvement of 5 dB in noise. If you were to listen in noise with just two implants, compared to one implant, on average you could do up to 30 percent better when you have two. Once again, it's taking all of that information from both sides.

This is showing advantages of the advances in speech processing strategies. Once again, CIS is a conventional strategy, and HiRes is the newer strategy. And with increases in noise, we're still seeing that with improved speech processing strategies, we're able to give your brain more information so that you can understand in difficult listening situations.

How many of you have the Advanced Bionics cochlear implant? (Showing of hands) Okay. How many of you use the T-Mic? What the T-Mic is, for those of you who are not familiar, it's this microphone right here. (indicates microphone) Normally on hearing aids and other cochlear implants, the microphone sits up here, at the top. So sound is coming in from all sides and reaching the microphone up here. Well, with the T-mic, the T-mic sits down at the opening of the ear canal. You know who else hears at the opening of the ear canal? Hearing people. This outer part of your ear acts like a funnel. The sound gathers and it goes to this microphone down here. So that gives you really great information as well. It also helps shield the mic against some noisy things.

The other great thing is you can put on regular headphones, and you don't have to hold them up here. All these bumps and ring ridges in your outer ear are there for a reason. With a T-Mic we are able to take advantage of that anatomy.

What are some other things to consider when talking about bilateral implants? As someone who was sequentially implanted, I listened to a few lectures and did a little bit of research and if you have one implant now, and you're thinking about getting a second cochlear implant, your first implant will probably be your dominant one for quite a while. And the longer that you wait in between getting a first and second implant, the more

obvious will be that dominance. I have a separation of six years between my first and my second implant. When I want to talk on the phone, I still use my first implant.

I have to take off my old implant to do listening things with my new implant. If you get them closer together, then that dominance isn't as great. In terms of progress, for those of you that do pretty well with your first implant, the second implant may not seem to progress as fast. So I wanted to give you some realistic expectations, if this is something that you're thinking about. But the differences that you see are more quality kinds of things. And I'll talk about that. It just sounds better.

I thought this was really interesting, a voice barely heard can be heard at a further distance. Remember the story about my daughter being in the back and I was in the front? I have to say that I'm less tired listening in groups, noisy situations. I just don't have to work as hard. Things sound better, especially for things like music. You feel balanced.

For those of us who are late-deafened, we know what normal hearing was like. And it's amazing to me, when one of my batteries dies, and I'm back to one implant, I can't wait to get my second one back. It sounds more like what we remember as former hearing people.

“My second implant surgery took place 14 months after the first, and it's been wonderful. I'm able to determine where sounds are coming from, and there's a fullness and richness and a balance to sounds that wasn't there with one implant. In addition, there is considerably less stress and fatigue because I don't have to work quite so hard to listen or to hear.” That's from one of our users.

If you are considering a bilateral implant, a lot of the research out there is showing the benefits of bilateral cochlear implants. In the 50s were they fitting people with just one hearing aid, right? It wasn't until the 70s where we started thinking maybe we should start putting two hearing aids on people, and that's the trend that we're seeing with cochlear implants.

If you have questions or you want to talk to other bilateral cochlear implant users, through the Bionic Ear Association we can hook you up with another bilateral user, someone who has been through what you're thinking about. So feel free to come to our booth. Let us know if you're interested or we can talk to you after this workshop.

The next thing I'm going to talk about is speech processing strategies. At Advanced Bionics when we think about sound there are basically three dimensions to sound. You have what is called the intensity domain, and what that means is how loud or quiet sounds are. The next domain is something called the temporal domain, and that just means timing. What does that mean? That means that the information that we're taking from the environment, we're doing that very quickly. That information is sent to your hearing nerve very quickly. What we're trying to do is simulate normal hearing as much as we can. The last domain that we thought that we would like to improve upon is the

spectral domain. And spectral just means frequencies. So the ability to hear low frequency sounds all the way up to the high frequency sounds. We're able to do that with our HiRes 120 speech processing strategy.

What we are able to do with our technology, in the electrode array, our electrodes can be fired one at a time very fast, or we are also able to stimulate electrodes two at a time. When we stimulate electrodes two at a time, we are able to actually steer the current in between and get spectral bands that were otherwise not accessible before. So what that means is that we are able to give your brain, once again, more frequency information, and getting more frequency information is important for difficult listening situations like music and also for listening in noise. Your brain needs to have as much information as possible to be able to listen in those situations.

This technology is available to thousands of Advanced Bionics' users that have been implanted since 2001. They are able to upgrade to this strategy if they were implanted after the spring of 2001. This is only possible due to the technology of our internal device.

A good analogy would be when you look at speech processing strategies is to think about a digital camera. When we think about those three domains, if you look at the temporal domain or timing, it would be like having good resolution. There are some cameras out there, the old digital cameras, where you might have two mega pixels. If you blow up that picture, you would see those individual boxes that make up the picture. That is not very high resolution. But if you were to increase the number of mega pixels and make it so that it doesn't matter how big you blow it up, it's still going to look like a picture; that is high resolution.

By increasing spectral or frequency information, it's like being able to see more colors. So, instead of everything being kind of bland and pastel colored, you might have more vibrant or neon colors. By increasing things like intensity or loudness, it's like having the ability to zoom in and out on different sounds. That's the dynamic range.

We're really excited about our Harmony system. And I'm going to give you a sneak preview of our new processor that we have coming out called the Harmony BTE. Our design goals when we came up with this concept is we wanted better performance for our users. We wanted it to be more convenient, and we also wanted to make sure that our pediatric patients had some features that they could use.

For those of you that have an Auria and would like to transition to the Harmony, the great thing is that you can use the same battery, you can use the same earhook. So you can swap those out with the Auria. And the T-mic is something that you can use.

Our headpiece is very thin, and so that is nice for kids who were knocking the headpiece off all the time. We have a very durable processor that is not susceptible to moisture. All of our internal components are coated so that it's very water resistant.

This processor is the only ear level processor that can support the new 120 processing strategy. The quality that you get, the way that sound is analyzed with the new processor is amazing. When I switched over from the Auria to the Harmony, I thought I was at 120. I thought I was in a different processing strategy, because the sound was so good. Kind of like going from an AM radio to an FM radio to a CD. So, listening with the Harmony right now, it's like as a former hearing person, I'm listening to a CD quality kind of sound. There is a built in telecoil for this new processor so if you're a telecoil user, you just have to switch programs to get to it. And I think the users here will agree that the battery life is probably one of the best things about the processor. Compared to what they were getting with the Auria, they are getting upwards of 18, 22 hours on one of their batteries, and we will talk about that in a little bit.

This is more for the children and for the parents and caregivers, but there is an LED on the top of the processor, which means that if a parent isn't sure if their child's implant is on or working, they can just quickly look and see if it's blinking at the correct pattern. For adults, it's a nice way to check on your battery life. As soon as you turn it on, it blinks a certain pattern to tell you how strong your battery is. We're also coming out with smaller earhooks for some of our pediatric users and adults who have smaller ears.

I'm going to really briefly talk about music. How many of you have a hard time listening to music with your cochlear implants, or wish you could hear a little bit better? (Showing of hands) I'll give you tips for improving your music appreciation and understanding. Part of it would be understanding the different components to music. So I'll talk really briefly about rhythm, pitch and stuff like that, and what cochlear implant users and hearing aid users are good at. We will talk about some ways to practice listening to music and enjoying music.

For cochlear implant users, there are some people that love music and there are some people that hate music. Why is there such a difference? Once again, it all depends on how you lost your hearing and what your physiology is like. Everyone's a little bit different. Some of us have better memories of what music is supposed to sound like. If you were a very critical music listener, nothing will ever sound right so you either have to accept what you're hearing, or don't listen to music. It also depends on what kind of music you're listening to. Listening to two instruments versus a full orchestra can make a difference on how you like what you're listening to.

Rhythm is just the beat of the music. Most cochlear implant and hearing aid users can tell the rhythm of music. I have to put a little caveat in here. There are some hearing people that are not good with music because they have no rhythm. They can't sing in tune and it's not because they have hearing loss, it's because they just can't.

Another thing to consider is something called timbre. That's what differentiates the different instruments. A trumpet playing a middle "C" is going to sound very different from a violin playing the same exact note. Why do they sound different? Because of timbre. There is just something different in the quality of that sound.

Most cochlear implant and hearing aid users can tell the difference between two instruments. They may not be able to say oh, I know that that is a French horn, but they might know it is not a violin. Most cochlear implant and hearing aid users can also tell the difference between someone singing a note with their voice and someone playing a note.

Pitch. This is where we get into trouble. Sometimes with pitch it's not that easy for people who have hearing loss. If you're a hearing aid user, sometimes things are a little bit distorted so what you perceive as one note might be different from what other people hear. I felt sorry for my daughter going into preschool because she was learning all of the songs from her deaf mommy who could not sing well in tune. My husband says that I'm better in tune now that I've gone bilateral. But pitch is something that can still be hard. There are some people that can use hearing aids and a cochlear implant together or hearing aid on one side and a cochlear implant on the other side. They seem to like to hear music better that way. It's probably because they are getting some more of these low pitches.

Loudness or intensity. When you play music too loud, it's not going to sound good. Things will sound distorted. If you use any kind of amplification, whether it's a hearing aid or a cochlear implant, when you turn something up too loud it's going to sound distorted and it's not going to give you a true representation of that sound.

Melody. And lastly, Melody is kind of a combination of all of these different components put together. If you have deficits in pitch or something like that, or you're having a hard time hearing the beat, understanding a song might be more difficult. What factors can you control? Your attitude in having realistic expectations.

If you grew up never playing music or enjoying music, getting a cochlear implant does not automatically make you a music expert. You may be getting access to more sound, but it will take practice. You may need to learn to enjoy music in a new way or a different way. That may mean listening to different kinds of music that you know you can hear, or going to things where you get visual information as well. I love going to concerts again, even though I can't hear everything, but it's just so fun to go to an open air concert and just be part of that social situation.

You can also control how much you practice. Just like with aural rehab and understanding speech, listening to music does not happen automatically. What are some steps to practice? Figure out what kind of music you want to listen to first. And you want to start out simple. Maybe just one instrument at a time. For those of us who were late-deafened, it's a lot easier listening to music that we knew before. Why? Because your brain fills in the gaps. I grew up in the era of classic rock. I played a lot of classical music. So for me when I first started listening to music again, I went to music that I was familiar with.

You want to use good recordings. Don't use an old audiotape that is about to snap because it's worn so thin. Use a CD or a good quality recording with good speakers or

good headphones, not the 99 cent kind that you get in a cereal box. You don't want to use music that is too loud, because once again it will be distorted. Sit in a quiet room where you have good acoustics. Choose your input. For some people, like for me when I'm on an airplane, I love the fact that I don't need noise cancellation headphones. Why? I can just plug directly into my iPod with my cochlear implants, and I don't have to worry about hearing anything else that anybody else is saying. Some people like to use their T-coil with a neckloop. Like I said, for those of us that have T-mics or if you have a processor microphone up here, you can put headphones over the top. Or you can use good speakers.

In the beginning, just listen. Try not to be so hard on yourself and feel like you have to hear everything. Get the beat. It's going to take practice. You might want to set some goals for that particular listening session. Can you tell the difference between a female or a male voice? Talk to your audiologist. Sometimes there are program adjustments that they can do to help you listen to music. Try adding your hearing aid if it's something that you can do as well.

Lyrics are hard for hearing people, too. But with the Internet, when you're stuck, you can find lyrics now and then that's one less thing that you have to worry about when listening to music. There is an organization of adult musicians with hearing loss. This is a kind of a support group for people who are cochlear implant wearers, hearing aid wearers, and they discuss different strategies to be better musicians and better music listeners.

In terms of enjoying music, I love going to an orchestra and being able to see the violin being played or see the piano. It gives me visual cues. I know if they are down here on the piano (indicating her left) I know I'm supposed to be hearing lower notes. Or if they move their fingers and their bow goes this way, what the music is supposed to sound like. It just gives me more. *Wicked* is a musical that I've seen four times. Twice with my daughter. But I read about this musical and I was familiar with the plot so I didn't have to listen to the music and figure out the plot at the same time.

If you go to different venues, sometimes they have assistive listening devices. You may need to bring your own patch cords. You may need to figure out how to use an infrared system. But sometimes getting that signal directly to your ears is such a great advantage.

Before we go on to questions, I would like to do our user panel. We have got about another 20 minutes, so what I'm going to do is ask Deb Hollingsworth to come up. Deb is a cochlear implant user and she is using the new speech processing strategy called HiRes 120. Our second user is Jim Alsup. He is a bilateral user, and he is using bilateral HiRes 120.

JIM ALSUP: I'm Jim Alsup. I lost my hearing when I was 24, due to autoimmune inner ear disease, like Tina. My hearing went away all but 15 percent in one ear in a space of

two weeks. I had 15 percent hearing in 1994. I wore hearing aids for several years, a BICROS system, until January of 2004, when my remaining 15 percent started to fade.

In July of 2004, I received my very first cochlear implant on my left side. I did well with it. I was thrilled. It was an amazing experience. In January of 2006, I got a cochlear implant on my right side. I was fairly ambivalent about getting a second implant. I didn't really know how much could be improved, but it was a life changing experience. It's what I remember hearing used to be like. It's made things remarkably easy for me, and that was something that was just a pleasant surprise, because I wasn't expecting much getting a second implant. But it was huge. It's improved the quality a thousand percent.

DEB: I'm Deb Hollingsworth. My hearing loss was different. I woke up deaf when I was 17. When I went to sleep the night before I had normal hearing, when I woke up it was all gone. They think it was antibiotics that did this to me. Can you all hear? I went through life for 31 years with no hearing at all and I had no hearing aids, because they didn't help. I got this implant in 2002. And I started out with CIS, which is a traditional speech strategy. It was okay. I liked it. I went from zero to 60 in two minutes. And three weeks later, I could talk on the phone again, after 31 years.

Six months later, I was upgraded to HiRes and that's when music started to take off in a big way. I was in the clinical trials. We live near Sylmar, California, which is where Advanced Bionics has their research and development, and I've been in the clinical trials there for three and a half years. Two years ago, I was asked to try something new, out of the blue. It turned out to be the 120 program. It has been the most amazing two years you can imagine. Music has changed so tremendously. I have a favorite singer, Patsy Cline. Have you ever heard of her? She has a beautiful, beautiful voice. And when I was using CIS, her voice was not there. When I got upgraded to HiRes, her voice was there, but it wasn't Patsy Cline, it was a singer. Now Patsy Cline's voice is back in my life again. It took me about a month before I could really come to terms with what I had back and it's been great!

Hearing in noise is amazing. I no longer have a noise program on my processor. I haven't had one for two years. And I'm just very, very grateful to have this.

TINA CHILDRESS: Do we have any questions from the audience? Do you have any specific questions for any of our users? Yes?

AUDIENCE: Have you been able to pick up conversations in the back of the car, for example, or other situations, eavesdrop on them, that you finally picked up as a result of your cochlear implant?

JIM: I have an eight-year-old daughter and she is very precocious and talks a lot. So prior to my first implant there was that period of time where I was waiting for my insurance to cover it, that I really didn't have very much usable hearing, and so that was taken away from me. My first implant gave me my daughter's voice back. And that was wonderful. In the car, it was difficult because my implanted side was right by the window

and I'd drive fast anyway and she would be in the back seat. That was a little bit difficult. When I got my second implant, that changed a lot, because she sits in the middle of the back seat so she can talk to me and I can hear when we're driving, without looking at her or anything like that.

As far as eavesdropping, yes, I can do that now. With one implant, I had to concentrate to perform at a high level. You have to work at it. It doesn't just happen. But what I found with my second one is I have gotten remarkably lazy in terms of "I don't have to work at hearing." I don't have to concentrate. I don't have to focus on you to hear what you're saying or any of you. I can just sit back and listen. So, if my daughter's over here on the couch and the TV is playing and my wife's in the kitchen making dinner, I can watch the TV, hear what Maggie is doing. If my wife calls me, I can hear. And I don't have to concentrate. That came with the second implant. Now I'm trying the 120. The 120 on one ear gave me a lot. Having 120 on both ears is an amazing thing. Having one implant is wonderful. It reconnects you. But yes, it's so much easier to eavesdrop when you don't have to concentrate on hearing.

AUDIENCE: My concerns for getting the cochlear implant would be they are always improving every year with new mistakes made from the previous ones. My biggest fear is if I were to get one, it probably wouldn't work as well for me, because I'm scared of losing my hearing that I already have. I have 15 percent hearing in both ears.

TINA CHILDRESS: Your concern is that when you get a cochlear implant, you'll no longer be able to use your hearing aid anymore?

AUDIENCE: Yes.

TINA CHILDRESS: That is a very personal decision. I know that there are many people who hold onto that last bit of hearing that they have, because of that same fear. And it's a very valid fear, because this is something that you're used to. For some people like Jim and me, it got to the point where we had nothing to lose but everything to gain, because we had no hearing left.

They are working on different surgical techniques to minimize damage to the cochlea. It's not a guarantee that when they put the electrode array in a cochlea they're going to cause some trauma to it. But they are working on making it not so traumatic.

Technology is always improving. It's like computers. It's up to you to decide when you want to seize the day. When you want to take that leap. For me, I didn't want to miss hearing my daughter anymore. I had nothing to lose, I had everything to gain.

JIM: I didn't have a choice. I had a business. I had people that worked for me. I had hundreds of thousands of dollars in debt that I had borrowed money to grow the business. I had a home, family, very involved in charity work. I was chairman of the cochlear implant center in Kansas City. It wasn't an option for me to go Deaf, so I didn't have a choice. I had to get the implant or just quit living the life that I had.

I didn't have a choice to not perform well. I had to perform well because that's just how it was. One of the reasons, like Tina talked about, the new implant that she has and that I have don't seem to perform as well as the old ones. It's kind of a use it or lose it deal. Those hearing nerves and all those things inside need stimulation of some kind, be it from a hearing aid or a cochlear implant or the residual hearing you have. So it seems like at least with Advanced Bionics their upgrades are going to be nonsurgical upgrades. They are increasing the power of the cochlear implant tenfold with no surgery. If you can jump on that, if you have this situation where you can get a cochlear implant, you can always be at the cutting edge of technology without having to have a surgery. And you can start taking advantage of the technology right away.

TINA CHILDRESS: Did you have a comment?

DEB: In my case, I had no hearing at all. My loss was down at 120 dB. I didn't have any expectations whatsoever with the cochlear implant. I just wanted to hear something. And what I have now totally blows it out of the water from what I was expecting. And I think it was worth it. I mean, if you qualify for a cochlear implant, obviously you're hearing not that well. So if you're going to hang onto your residual hearing that you have, you know, that's a personal decision. But I would say the cochlear implants today are worthwhile looking into, very seriously.

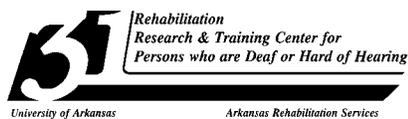
AUDIENCE: Thank you. I just want to give you some additional information or motivation. I'm a bilateral cochlear implant user. You asked a question about directionality or hearing someone in the back seat of the car. Well, I have recent personal experience. I was going to a Halloween hayride and there were people packed in the car. The person who was giving me directions was sitting in back of me. This is at night. I'm driving a car. This person is directing me how to get to this place, and I don't know how to get to it. Since I'm a bilateral user, I'm happy to say that I heard everything she said. I got us to the destination. We didn't end up in China. I encourage you to fight your insurance company to get the opportunity to make the choice of going bilateral, if that's what you're doing.

And one other very recent experience. Deb and I communicate by instant messenger and with a Web cam so I can lipread her and she can lipread me. Her sister called in to talk to her. I had never met her sister. So imagine the situation where I'm having a two-way conversation, Deb is in front of me, who I can lipread, her sister is in Maine. The information is going from Maine to California, back to me, and I live in New Jersey. And we're carrying on this active conversation. I didn't have to say "what?" So that should be another motivating factor for you to fight for this opportunity for yourself, so you'll be as functional as you can be with the current technology.

TINA CHILDRESS: I want to thank you for your participation and attention. And I hope you enjoy the conference. Thank you.

Biographical

Tina Childress, M.A., CCC-A is a late-deafened adult who received her first Advanced Bionics cochlear implant in August 2000 and became a bilateral recipient in December 2005. She is currently a Consumer Services Specialist for Advanced Bionics' Bionic Ear Association and provides support and education both online and in person at various consumer events. She has also practiced as an educational audiologist in the mainstream and residential school settings as well as consultant/trainer and visiting lecturer for various programs and schools. She received her audiology degrees from the University of Illinois at Urbana-Champaign and still resides in the area with her husband and five-year-old daughter.



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