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Tips and Tricks and Treats: Fitting Success with ReSound Nexia

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- This is Jill Mecklenburger, and my name is Tammy Stender. And we work in research and development at ReSound. Today, we're coming to you live from Glenview, Illinois in our research facility, and we're very excited today to talk about tips and tricks, and treats, because it's Halloween, for fitting success with our newest product, the ReSound Nexia. So Jill, would you like to take it away?

- Sure. Thanks, Tammy. Let's get started here. So it's Halloween, everybody, and thanks for taking time out of your day to attend this exciting class. Let's first get started with what are our learning objectives? What are we here to, what are the takeaways from today? Well, we're hoping that by the end of the class, you'll be able to describe how to fit the new ReSound Nexia CROS and BiCROS models. You should be able to explain how to set up a noise program in a ReSound hearing aid for optimal performance in challenging environments. And finally, you'll be able to define ways in which ReSound Nexia can be programmed for easy connectivity to wireless devices. So let's look at our agenda, what we're going to cover today.

We're going to kind of give you a little introduction to ReSound Nexia. If you haven't seen the intro class that Tammy did last week, we'll give you a few pointers or highlights from that. Again, we're going to talk about how to fit CROS and by BiCROS, our newest products. Programming for hearing and noise and how to set that up. Setting up for the new Low Energy audio connectivity from Bluetooth. And then finally, we'll even have a few more tips and tricks and treats for you. So let's get into it.

- Sounds good.

- We're very excited to bring the new ReSound Nexia product to you. It just launched a couple of weeks ago. And it's top-rated for hearing and noise, as well as some other exciting new features that we're going to share with you today. And being Halloween, we thought we'd get into the spirit of things here. So some of the highlights of the new

ReSound Nexia product include the smallest RIE that we just launched. It's a Micro RIE. So very exciting for your patients who want the smallest hearing aid possible, which, you know, who doesn't? We hear that all the time. We're going to talk about fitting CROS and BiCROS, and candidacy and how to set up those devices.

Nexia has a new feature of first time user onboarding that's exciting for those new patients who have a lot of their own unique needs. We have unmatched directionality. And then finally, Nexia is all set up for the future of connectivity with whatever type of connections your patients may need.

- It's new stuff.

- New stuff, yeah. So we started at the back to the drawing board with this product. And we talked about how people want the smallest hearing aids possible. And this new Micro RIE that launched with ReSound, Nexia is actually 16% smaller than the miniRIE that we launched earlier this year that people were pretty excited with, even that size. And that was 25% smaller than our standard RIE. So we just keep getting smaller and smaller with these products,

- Right, because how do people choose their hearing aids? How they look in the hand. So we wanna make sure that we're cognizant of how people are really judging what they want when they buy this technology.

- Yeah, good point. So at ReSound, we always talk about organic hearing and organic design. We want to do everything as naturally as possible. And the design of this Micro RIE is really our most organic design that's going to provide the greatest amount of comfort and performance for your patients. And some of the aspects of that are that we actually change the hook and wire transition of how it connects to the hearing aid. So it's going to give a better center of gravity on the ear and the hearing aid will be

better mounted for the microphones to be positioned optimally. It has a better angle on the ear, as you can see, it's like a 34 degree angle, and this is going to ensure the best ergonomics on the ear.

The device is very, it creates a calm symmetry and it's thinner and more rounded than some of our previous models, just to give an overall pleasing effect of a small hearing aid. The way that it fits on the ear, as we talked about just in the previous slide, it has a lower center of gravity, so it's going to sit optimally on the ear. And this is going to provide the best position for the microphones. And we won't get into too much of how these microphones, the directional studies that we've done to create the best hearing and noise and top hearing and noise, but if you want, you can go back and watch Tammy's talk from a week ago on the intro to ReSound next year, where she talks about a lot of that research.

But what's important here is that you want those microphones to be horizontal to achieve that top hearing and noise benefit. So we have a new first fit setting within the choices that you can select for your patients when you're setting up the Nexia hearing aids. And this is to optimize comfort for those new users. We know that these new users are our most vulnerable patients, They're really susceptible to loud noise a lot, often they, when you fit them with hearing aids, they think that everything's too loud. And here's some statistics about them. We know that about 95% of them have challenges getting started. It's difficult for them to acclimate, and they all, as we know, they all just need an adjustment period.

So that's why we've created this new first fit to optimize comfort setting.

- Right, because if they reject them out of hand, then there's no way they're ever gonna get the benefits that they need.

- Exactly. We don't want them ending up in the drawer. So we call it onboarding, and this is all available in our new ReSound SmartFit 1.17. So you'll see, basically, in the the patient ribbon that you select, that red ribbon there in the fitting software, if you click on profile, that's where you can choose your experience level, and that's where you'll find this experience, or this first time user onboarding setting. And it's set to create a level that 70% of our previous first-time user level. So it's going to reduce the overall loudness and make the first fit more comfortable for a first-time user. So you can go in and select that, and it actually has a moderate impulse noise reduction setting instead of mild, because we know those first-time users are really susceptible to loud noises.

And this is going to replace, if you're familiar with our previous software, it's going to replace a profile that we previously had called Comfort User. And we've found that this, we've done lots of studies where we found that this is just an overall more pleasing profile for those new users.

- It's gonna make a bigger difference. If you start them at first time user, and they're still a little bit iffy about whether they can make deal with that much gain, this new setting, first-time user onboarding, is going to be a much more dramatic reduction in the gain, make it easier for them to acclimate without you having to actually press gain handles to reduce the gains.

- Yeah, so it's basically a tip for an easier fitting for your new users. So let's talk about some of those other users that we see in our clinics, and those are people with single-sided deafness. And, you know, just to kind of review the definition of single-sided deafness, as we all know, is the significant or total loss of hearing in one ear. And we kind of can see further, it's people who have normal hearing with a PTA of less than 25 in one ear, and severe or worse hearing in the other ear. And the main consequences are some of the issues that these patients have, they have trouble,

obviously, hearing any kind of speech, something coming up to speak to them on the impaired side.

And because of this, they have a lot of difficulty localizing where sounds are coming from, especially even more than the other users, have even more trouble understanding speech and noise. And as a result, they suffer from auditory fatigue, which is really, you know, when they're struggling to listen with this single-sided deafness. So just a fun statistic here, in the USA, it's 0.14, you know, 0.14% of single-sided deafness people, and that's nearly 350,000, which is, you know, quite a lot.

- Yeah, that's like a small city. Or actually, a pretty big city, actually, like Cleveland or something.

- Really?

- Yeah.

- Is that the size of Cleveland?

- I looked it up.

- Wow. I didn't know that. So to help you with all of these single-sided deafness patients that you see, with ReSound Nexia, We've launched a new CROS transmitter that you can see here. It works with the low power, medium, and high power receivers, and it provides 16 hours of battery life when you're streaming to the opposite ear. It's a little less than what you see with our standard hearing aids because it's using that magnetic induction radio to be streaming all day. So you'll see slightly less battery life there at 16 hours. Here's a typical audiogram of a patient profile that you might want to fit with this product. So to review how does CROS work, you're going to get that signal

going into the ear with the barely any usable hearing side, and it will send it across the head to the better ear.

And this is for somebody you would fit CROS with someone who has normal hearing on the better ear side. So that transmitter side isn't delivering any sound to the ear, it's sending it over the head to the normal hearing ear. Where patients that have more of a hearing loss on that good ear side, the BiCROS fitting would be in effect. So it's doing the same thing, but then you're also getting amplification on that better ear side. And you would fit that the same way you would just fit a standard hearing aid on that ear. You don't have to do anything special or different with it. And once you do, your patients are going to be so happy, you'll see big smiles on their faces, even when it's not Halloween.

- So we were talking earlier about what kind of receiver do you fit on the transmitter side? And isn't it just the one that's most comfortable for the user?

- Exactly. Because you're not delivering any sound into that ear, so it really doesn't matter which receiver, whatever fits best for your patients. And I know a lot of people like to fit our low power receiver because it's so slim and narrow and more comfortable.

- Same goes with the domes, right? Any dome that's most comfortable for them and keeps it anchored on the ear. So it makes it really easy to fit the transmitter here then.

- Exactly. So what does it look like when you open your SmartFit software and you're fitting a CROS setup? You'll see that you'll have a regular Nexia device on the ear that's receiving the signal, and the CROS device on the other side. So it will look like

this in your fitting software. For the BiCROS fitting, as I mentioned, you'll just fit it the same manner as the standard fitting. And good to know for a CROS fitting, you will have gain available because we don't want that ear to be occluded, even if it has normal hearing for a regular CROS fitting. However, some people might even want to go negative gain on that side because you have to remember, the standard profile that's set up would be for Kimar's ear, and your patient may require more or less gain than Kimar, even with a normal hearing ear.

- You mean the difference between Kimar's unaided response and the individuals unaided response?

- Yes, exactly.

- Right. Okay. So it's nice that we have that flexibility where you can add a little bit of gain or you can take a little bit away, but either way, it's gonna be tailored to your individual user.

- Absolutely.

- Cool.

- There's a CROS balance control, because some people might not find it initially, right off the bat, balanced. So you can actually slide that slider between the ear with the hearing aid microphone side and the CROS transmitter side to get a nice balance. And here's a pro tip, the mute button in the SmartFit fitting software on the receiver side is muting the output, but not the microphone. So if you want to be testing the levels with

or without CROS turned on, you're going to want to mute the transmitter side. So just a little cool pro tip there.

- That's great.

- So with users, they might want to adjust the balance in situations where they're hearing, you know, something very loud on the transmitter side versus the receiver side. So in your manual control screen, you can give them these controls. It's in the center of the screen where you're adjusting for what the short button push and the long button push does. So it's a good idea to do volume up and volume down for the receiver side, and then CROS up and CROS down on the transmitter side. And that way, the patient will have access to those using the onboard buttons on their hearing aids. So moving on to another trick that we wanted to tell you about, how do you help your patients achieve optimal hearing in noise?

- I think that's a very timely topic. Everybody wants to know about that.

- Absolutely. And why do they wanna know about this? Well, we know that hearing, being able to hear well in noise is still the biggest challenge for most of our users.

- That's what brings them into our offices.

- Absolutely. Hearing conversations in noise, we found in many studies, is the main reason for purchasing of hearing aids. And in fact, in MarkeTrak, in 2020, Erin Picou found in her study that following conversations in noise, having conversations at home with family, and talking on the mobile phone are among the most important situations still that people are reporting. And finally, other studies have shown that nearly one in

three hearing aid users are still unhappy with their ability to hear conversations in noise. So it's still a huge problem.

- And it's this thing that we really need to keep focused on when developing new technology since we've come a long way, but we've got a ways to go. So let's get better.

- Absolutely. So again, in our ReSound, our latest version of ReSound SmartFit, you'll be able to set up a new, a noise program for your patients, and we're going to show you how to do that. So program two, or many people like to have it be their second program, we used to have ultra focus or front focus and also restaurant program. We've decided to make things easier for your patients and just call that a hear in noise program, because most people just want to hear better in noise. Patients don't necessarily come in asking for a restaurant program, right? They want just a program where they can hear better in noise.

- They never asked me for front focus. They just wanna hear better in noise.

- Absolutely. So that's what we've renamed our, we've combined the ultra focus and front focus programs into a hear in noise program. So looking a little bit more closely at that program, if you look at the speech tab, we can see that you have access to all the different controls that you've had before, or features that you can adjust. But something cool that we've changed now is the time constants in our hear in noise program. We've changed them to slow based on recent research, evidence-based research that shows having these slower time constants, people perform better in noise, because it's preserving the spectral patterns of speech better in those situations.

- Those really difficult speech in noise situations.

- Exactly,

- Yeah. The ones where it's like do or die, you have to know what's going on. That's what this whole second program is for.

- Absolutely. And I have a patient who I fit the other day who he likes his second program to be, he calls it his emergency button or emergency break. So if he's out with his wife in a restaurant, he finds that the all around program usually helps him pretty well. But if he's in a super noisy restaurant, he goes for his emergency button and goes to the hear in noise program. So I thought that was a good application or way that he calls, way that he's named that.

- I love that.

- So the slow time constant in addition to our directional features are what are adding to that. So the comfort aspect of our hear in noise program, here, you can see are all the other features that you might want to change if you want to give someone a little more noise reduction, for example, or the impulse noise reduction, you can see is set at moderate. So those are where all those settings live. And for your patients, in their app, that this new program is going to look like this, where it says hear in noise rather than restaurant with a knife and fork, which is what they had before. So it's really, as we mentioned, it's a combination of the restaurant, and either the ultra focus or front focus program depending on what technology they may have worn before.

But what I'd like to just mention here is that we have a whole user experience team that evaluates and designs our apps, and test them on actual patients, because they know that your patient might not have as much experience using an app. Some of them may

not have as much experience in using an app as others, so we really want to make sure everything is usable and easy and makes sense to your patients.

- Great.

- So now, I'm going to turn the next treat over to Tammy.

- I love candy corn. All right, so this is where the food comes into play, with some treats here. But we think that the future of connectivity is a certain treat for not only just users of hearing technology, but for everyone. So we'd like to spend some time talking about new Bluetooth Low Energy Audio Connectivity. This is brand new. And honestly, if I hadn't been learning about this with the release of ReSound Nexia, I'm not quite sure I would've even heard about this very much in the news because it's really just up now.

- It's so new, yeah.

- But there are already smartphones out there that use this kind of technology, Bluetooth Low Energy Audio. And so we have put this technology into the ReSound Nexia product line. For the first time ever, this technology is in a hearing aid product, and it's going to really change the way that we can help users, especially in those most difficult situations where they have to struggle to hear, it's going to create better accessibility for them and for everyone.

- It's really exciting.

- It is. It's so cool. So Bluetooth Low Energy Audio, you'll see it abbreviated Bluetooth LE Audio, but the audio part is always the last word of what it is called. And that's what distinguishes it from earlier versions of Bluetooth, like Bluetooth Classic or Bluetooth

Low Energy. So Bluetooth Low Energy Audio allows us to have two really cool functions. First of all, calls and streaming from devices. So hands-free use with Android users is going to be very commonplace with this technology. So if you are used to fitting made for iPhone hearing aids that already have hands-free connectivity so that the user can just hear the speaker in their hearing aids instead of having to hold the phone up to use them, they're gonna be able to do that now with the Android phones that have this Bluetooth Low Energy audio.

- That's great.

- Yeah. It's going to really level the playing field, and not just for our patients, but also for us as fitters, because I am not a pro at every single smartphone that exists out there. And trying to figure out which one's compatible with which is something that I'd rather not spend so much time doing, this is really going to make it a whole lot more standardized and universal, making our jobs easier so we can focus on what matters. But there's another really amazing kind of functionality with Bluetooth Low Energy Audio, and it's the ability to broadcast. So what this means is we're gonna be able to stream sound to hearing aids using accessories like a brand new TV-Streamer+ that we're putting out with the ReSound Nexia as well, as well as public address systems.

And this is known as Auracast. Auracast is not something that we developed here at ReSound or in any hearing aid company, it is developed by the Bluetooth Special Interest Group, and it is a way of basically implementing telecoil technology for the whole world through digital streaming. It's going to make public systems so much easier to listen to. So think movie theaters, places of worships, you know, just even hearing the gate counter person announce your flight at the airport, you'll be able to hear that and it'll be streamed directly to your hearing aids through this technology. So

the possibilities are endless and it is a really big step forward in connectivity. So how did we get here and what is the goal of Bluetooth Low Energy Audio for hearing aids?

Well, several years ago, a group, of hearing manufacturers called AHIMA, and we are part of AHIMA, they approached Bluetooth Special Interest Group and said, you know, we'd really like to have a better standardized way of implementing universal connectivity with Bluetooth technology into hearing aids. And we're a special customer for Bluetooth actually, because unlike, you know, unlike your big stereos, unlike your laptops, we have teeny, teeny little power sources and very small antennae. That's all we can fit in these hearing aids that we know people want to be miniature. So in order to get the amount of sound quality and robust signal that we need, we needed to have a new standardized profile for hearing aids that would be replacing the older Bluetooth Classic protocol that would be easily implemented into other devices that patients would want to connect to, such as their smartphones, laptops, you name it, and be able to stream from those sources, too.

So Bluetooth Special Interest Group obviously went and developed a brand new protocol called Bluetooth Low Energy Audio. And this new protocol provides three main advantages. First of all, it's low energy, so it's not gonna consume as much power as Bluetooth Classic did, it's going to consume about the same power as Bluetooth Low Energy did, but you're gonna get a new more modern codec, which preserves better robustness of the signal so that you don't get those dropouts, and also to give you the top sound quality available today in this kind of technology.

- Yeah, they've done studies comparing it to the previous codec, and it kind of blows it away in terms of sound quality.

- Oh, that's so cool.

- Much better.

- Yeah, while at the same time that you're not using all that energy because we know people need all day use for their hearing aids. And then on top of that, Auracast is like an add-on to the whole Bluetooth Low Energy Audio that runs on that kind of technology, and what that allows you is to multi-stream, you can stream from one accessory, and a friend that has hearing aids, that have this kind of tech connectivity in it could actually hear your TV streaming through your streamer to their hearing aids as well. Yeah, it's gonna be amazing. It's gonna make Super Bowl parties a whole lot more fun, too.

- For sure.

- So it's true global interoperability, and it's gonna give us a whole lot more selection choice, and most importantly, accessibility to everyone. So this codec in Bluetooth Low Energy Audio was completed in 2022. So it's very, very new. It provides higher quality with less battery consumption. So important. And what this means and what this little graph is trying to show here is that even when there's a lot of interference in the environment, so if there's a lot of things streaming at once, you know, Bluetooth has to compete to make sure that the signal gets through correctly so it doesn't drop out or have bad sound quality. But even when it's very, very crowded in the Bluetooth streaming environment, this codec is able to preserve the sound quality much better than it ever would with classic Bluetooth.

So it's much more efficient, it gets the signal through, and with high sound quality. Additionally, there's multi-stream support. And what this means is that it's not going to be apparent that you are wearing hearing aids if you're using this kind of technology, because the future indicates that earbud manufacturers are putting this into their new products, headphones, you name it, it is going to be ubiquitous. And this also helps

with people wearing hearing aids. They're using the same technology that everybody else is. So at that Super Bowl party, their 14-year-old nephew who's wearing the earbuds will also be able to connect into this technology and use the same kind of streaming to hear that game better.

- And in places like a theater where someone used to have to get the headset for the hearing impaired and the kind of stand out or have a stigma attached to them, that will all go away because everybody will be able to receive it, hearing aids, people with earbuds. They won't cool be singled out anymore.

- I love it. I love it. And finally, for hearing aids, it gives us the ability to provide the same battery power that we have in the past with Bluetooth Low Energy, but with better performance and easier accessibility to all sorts of smartphones, laptops. Isn't there a laptop or a tablet out there that already has it in there, Jill?

- There is, yeah.

- Yeah. So you could stream a movie from your laptop while you're flying to visit your relatives over the holidays. I mean, this is the future and it's here. And finally, broadcast audio, that's that Auracast that's going to make accessibility better in public spaces, especially. So how does it work? Well, the transmitter and Auracast cast transmitter, which you can actually even buy Auracast transmitters on Amazon now. If you wanna retrofit a venue like a movie theater, you can do that now. People are putting that into some theaters here in Chicago, I've heard. But the transmitter sends an information package in parallel with the audio signals, which allows your phone to pick up that there is a broadcast for Auracast happening.

And then the receiver, which is the hearing aid, can use that information to connect to the audio signal. And then, so what it's gonna look like? It's gonna look like when you are trying to connect to a personal hotspot or a wifi stream, you're just going to go into your Auracast broadcast and choose which one you wanna hear.

- Oh, nice to have that option.

- Right. And I think even in our example, you can see that it can be very individual, like small broadcasts or large broadcasts. So here on the example, we've got an Auracast broadcast, and that might be for the whole airport, but then the gate agent at your airline, the one that's telling you that it's last call aboard, you can also pick up their stream as well.

- You can connect into them and know when your group is boarding, all sorts of things like that. But you can also connect to your friend's phone too, which you see there. Some of those might be private where they may have to invite you, but you'll have a multitude of options.

- There's a private and a public function, so it's really accessible, really easy to use. And that's why it's going to be everywhere. The ABI research group has predicted that there's gonna be over 2.5 million venues outfitted with this technology within the next six, seven years. And the ramp up is going to be huge, as you can see. With the smartphones coming out with it now, and with the venues that are starting to retrofit it, it really is going to be a very cool part of our future that's already starting to happen today. It's allowing you to share your audio, it's bringing people together, allowing you to hear your best, and unmuting your world. So if you're at the gym and you wanna watch a certain broadcast on a TV while you're on the treadmill, this is the kind of stream that you would be using nowadays instead of the old fashioned ways of doing it.

If you're trying to hear others and you're at a very important function, you'll be able to tap into this stream. So ReSound definitely wanted to bring this technology as quickly as possible to the users of Nexia hearing aids. And so the TV-Streamer+ is a brand new digital accessory. And it's like our TV Streamer 2, but it has this Bluetooth Low Energy Audio in it, which means it's got some pretty cool advantages. So as you can see, we went back to our usability group for the accessories and said, you know, we gotta make sure that these make, this is intuitive and easy to use, because we don't wanna confuse people. Get rid of all the extra stuff we don't need, make it a smaller device, make it easier to hide, behind a TV set perhaps, and make it more intuitive.

So as you can see, there's a volume up and a volume down. There are a raised tactile plus and minus sign. There's an LED that allows the user to know what the status of the streaming is and whether it's pairing. And speaking of pairing, there's magic pairing now, which means you don't have to reboot the hearing aids anymore when you are pairing.

- That's convenient.

- Yeah. Isn't that nice?

- Especially for people with rechargeables that have to put it in the charger and take it out to refill. This will make it so much easier for them.

- So much easier. And also, when a guest comes over and they wanna be able to connect their Resound Nexia hearing aids to your streamer, they won't have to like open and close and be offline for a little bit. All you have to do is put the hearing aids in proximity of the streamer, and that can be like two inches. So you can get a whole bunch of hearing aids within two inches of this streamer, and it will pair up to all of

them automatically, you'll still hear a trill in the hearing aids, and the LED will indicate that it's paired.

- It's like magic.

- It is like magic. So I don't know about magic, but it's pretty cool. There's also just one audio input, and this is really nice because it simplifies it for the user when they're trying to hook this up. So before we had a different input for different kinds of cables, we still have all of the cables available. We've got the optical cable, it's also known as TOSLINK, but it's an optical cable. And on one end is the optical cable, and on the other end is the 3.5 millimeter jack. And we also have the RCA cables, and on one end of that cable is the RCA, and then on the other side, 3.5 millimeter jack. So all the user has to do is decide which one they wanna use to connect to the back of their TV and select that cable to connect the back of the TV with either RCA or optical, and then plug the 3.

5 millimeter jack into the TV-Streamer+.

- That's nice for those, some of those people you have might have that still have older TVs to have that cord available.

- Exactly. It's also USB-C powered, and this is an additional cord that comes with the package here. And this allows you to connect with the power source. It's gonna have a USB, a standard USB on the back, so you can connect that into a USB port on your TV. Or you could also put a brick on there and connect it to the wall. So it's powered in the more modern ways of powering now. And as you can see, we've got some, we provide some Velcro strips so that you can affix this new TV-Streamer+ behind your TV so it doesn't have to sit out anymore. It can be really hidden and it does a great job.

- Oh nice.

- Yeah. Okay, so how does this look when you're fitting Nancy Nexia here? So this is a new generation accessory. It uses Bluetooth Low Energy Audio, so it's a new generation accessory, and it's the only one that we have right now. But you can also pair your previous generation accessories with Nexia. So never fear, if they've bought a Phone Clip+ or a Multi Mic, it will work with Nexia just fine. You can actually have eight new generation accessories, including smartphones, and five previous generation accessories, so that's 13.

- Pretty cool.

- Lucky number 13 accessories that you can have, including phones, connected to these devices. So you're giving a whole lot of opportunity here for better connectivity.

- That's one of the things I've always loved about ReSound too, is that we have that forwards and backwards compatibility, that you can buy a newer hearing aid and use it with your older accessory or vice versa.

- Exactly. The newer generation accessory TV-Streamer+ only works with the Nexia.

- That's true.

- But if you have somebody that you just sold them a TV Streamer 2, even, it'll still work with Nexia. So they're not gonna come and be like, why did you sell me this? No, it's not obsolete. It works, we're backward compatible. We still have TV streaming and bass boost and mic relative to TV streamer, but you'll see that this is actually as part of

your device controls because we have mix and streaming now. So you don't have to have the user change programs to get into the streaming program when they decide on their app or with their devices that they'd like to hear that TV, they don't have to change out of the program that they were in.

So it's pretty seamless. Did you know that you can use the Smart 3D app to do a lot of other things too that keep them from having to come back into your office for an additional appointment, such as updating the accessory software, can be done in the app now. If they are a monaural fitting, or if maybe one of the hearing aids gets lost and they aren't able to get a new one right away, they wanna turn off stereo sound and they can stream monaurally to that hearing aid that's still there. So while they wait for their new hearing aid to come back, they can change that around into monaural if necessary. You can select a public broadcast with Auracast, or you can select that it's going to be private in our app, and it has an adjustment for the audio visual delay, which means that if you've got a really complicated stereo system with your TV, and you find that once you get it all set up, that there's a delay in the visual versus the audio, which sometimes happens, you can adjust that delay right in the app now, you don't have to do it on the accessory exclusively anymore, so it's pretty great.

The Auracast public broadcast, the capacity on that is unlimited. As many streams as there are, you can choose them as many as your phone can find. And for private one-to-one streaming, we can pair 50 devices to these hearing aids.

- So that's a lot of hearing aids.

- That is a lot. 50 hearing aids to a single TV streamer, it's pretty amazing. When you are pairing, there is an order of operations. So here it is. First, you wanna pair the hearing aid to the phone so that way, they get the direct connectivity for phone calls. Then you wanna pair the hearing aids to the TV-Streamer+ if they have a

TV-Streamer+, which we hope they will, because it will really help them hearing TV, which is one of those environments that were indicated by MarkeTrak is one of the most important to users. So client hearing aids to TV-Streamer+ is second. And then to complete the circle here, we're gonna pair the TV-Streamer+ to the app in the phone.

And that is the one, two, three sequence that you do to get everything working the way it should. So let's take a closer look here as a tip and trick for pairing the hearing aids to the phone. So this is gonna look pretty familiar. It's going to be a Bluetooth pairing request with your Bluetooth Low Energy Audio phone. And it asks you if would you like to pair with your phone? So you hit pair, and then it asks you again, do you wanna pair with the other phone? And when you hit okay, it automatically starts to pair. So we have a video here, which is also available on our website if you'd like to watch it again, or maybe in a bigger screen here.

You wanna put the hearing aids about two inches away, and that allows that magic pairing. So we make sure that the TV streamer's on and then we press the magic pairing button so that it can make that connection. Okay, so here it is. The LED indicates that it's looking for the hearing aids. We elapsed some time because it'll do that for about 15 seconds. In this case, it paired 1 within 12 seconds. And here's the second hearing aid. There we go. All right. So they're both paired up now, but it's still is gonna look for other hearing aids, because in case you had 50 hearing aids sitting right there.

- If you had friends over that wanted to watch the Super Bowl with you,

- Right. I think it's two minutes, right? That it looks for...

- I think so,

- Right.

- To give you that option

- Right. Next, we're gonna pair, okay, so you've got the hearing aids paired to the phone, and then you have the hearing aids paired to the streamer, now, we're gonna pair the streamer to the app in the phone to really complete the cycle here. So you're going to go to your app and hit the more menu, which has pair new wireless accessory. You're gonna choose which accessory, which here is the TV-Streamer+. You initiate the pairing mode on the accessory, and it shows you on the app how to, what button to press. That's your magic button there. And you search. And while it is searching, it asks you do you want to pair with the TV-Streamer+?

It gives you another very familiar-looking Bluetooth pairing request. And then success is confirmed, and it says well done. So it gives you congratulations, successful pairing, and it says your accessory is now connected and ready to be used. And then you will see it on the main screen of the app. You tap the play button to stream, and that's all you have to do to start that streaming process when you are watching TV. You'll find all of this in accessories under My ReSound. And this is a little different than what we've had in the past. So that's why we've created some videos to go along with this. So here's the video that goes along with how to pair TV-Streamer+ with the ReSound Smart 3D app.

So you'll see here again, she is making the pairing request, selecting and pressing the magic pairing button. We see the LED is blinking, letting you know that things are happening here.

- And you mentioned these are available on the ReSound website, these videos, are they on YouTube as well?

- I think so. But I know for sure that they're on the ReSound website. Okay, and there you have it. Now she can stream, straight from the home screen of her app.

- Easy.

- Totally. So we're not saying that this is the only kind of streaming your customer might want do, because if they've got an iPhone, it will still today be using made for iPhone streaming. But what's cool about ReSound Nexia is that it supports all of these kinds of streaming. I mean, we're talking telecoils. Auracast coexists with telecoil technology. You can have a movie theater that's got a loop and an Auracast transmitter. They coexist very nicely together. You still have access to the FM systems with a wireless accessory in these models for Nexia, we have Bluetooth capabilities through the Phone Clip+ accessory, we've got our own streaming that we use for our other accessories like the TV Streamer 2, the Phone Clip+, Multi Mic, we're still made for iPhone, we still have ASHA streaming which use, which works with the Android phones that don't yet have this Bluetooth Low Energy Audio technology.

We have the bimodal connectivity, and now we just have added Bluetooth Low Energy Audio.

- And speaking of bimodal, I've heard that Cochlear's latest processor is Bluetooth LE audio compatible.

- Oh, that's so cool. Awesome. So yeah, we are gonna be seeing a lot of this, and we're really excited to bring this technology to you today. So let's route it out with a couple more miscellaneous tips, tricks, and treats to end out your Halloween day with us here. So here's a treat. Recently, I've been hearing people asking about a certain kind of audiogram that's pretty ambiguous, because you look at it and you wonder,

should I be fitting with a medium power or with the higher power receiver? So in this kind of a situation, yikes. Okay, so we've got basically normal hearing in the low frequencies, and then it deeply slopes to pretty severe in the high frequencies.

And back when I was learning how to fit hearing aids, I'd be like, oh my gosh, I have to go with a high power receiver, because I wanna make sure that I get that gain without any kind of feedback and... But is that the best way to do it now? Because I got out of school about 25 years ago, so maybe I need to revisit my assumptions here. So looking at the spec sheets, which receiver to fit gives me some clues about the fitting ranges, because the fitting ranges are on there. But you'll notice that the fitting ranges, sometimes they overlap a lot, so it still doesn't give you a really clear picture. So what I think I'm going to look at more here is the frequency response.

Because lower power receiver, lower power receivers have a wider frequency response, they can go up to 9,600 hertz. And the low power and the medium power.

- That's right.

- But the bigger the receiver, the more massive it is, it resonates at a lower frequency. And so when you start to get up into the high power, ultra power receivers, you start to see that your peak response moves down in frequency.

- Yeah, it's a little more limited, right?

- Yeah, so if I can go back to this audiogram, I don't wanna have a limited frequency response in the high frequencies because then I'm not even gonna be able to reach those targets. So thinking about it and looking at the fitting ranges for this, here is a medium power receiver on that hearing loss for each year. I see that I'm well within the range.

- It looks like a good fit.

- And what this means is that I'm going to be able to provide them a wider frequency response, which helps me reach those targets better when I'm doing relay, but also allows them to have a feedback free fitting, because feedback reduction, you know, it's come a long way, baby. So we are able to fit these kinds of hearing losses now with a lower power receiver than we ever were before. And while it also helps you reach your targets, it gives you a better response for the high frequency sounds, which makes some richer sound quality. People are gonna be able to hear those consonants a lot better, the harmonics, it's gonna be more natural sound quality if we can fit them with a lower power receiver.

So as you can see, once you get into that very high power receivers, like an ultra power, you're really getting limited response up to only about 5,400 hertz. So try to fit them with the lowest power receiver that fits their fitting range, and you'll probably have the best time at verifying the fitting, as well as making them happy. All right, so we have chosen here a medium power receiver. But when do you change the domes? So again, here's that tricky audiogram with normal hearing in the lows. Can I go ahead and hit them with an open dome and not get in trouble when I'm trying to reach some of those high frequencies?

- I don't know about that.

- Right. So the nice thing about resound domes is that even when we call it a closed dome or a tulip dome, it's actually pretty open. And so if you're having any troubles at all reaching those high frequency targets, then feel free to move into a tulip or a closed dome, save your power domes and your ear molds for the ones that you really wanna

close fitting on. But for the ones that you wanna be open, don't be afraid to fit that closed dome. We probably shouldn't have named it a closed dome, right?

- It's a little bit of a misnomer.

- It is.

- It's not too closed. And I like the tulip dome myself, too. I fit that a lot.

- I do too.

- It's a good combination.

- Right. Okay. How about one more trick? Tap control. That's a new feature in Nexia, ReSound Nexia. And what it allows you to do is answer the phone by double tapping the side of your hearing aid. So it's got one function, one function only, that was by design so that it would be easy to use. And it allows you to quickly pick up the phone if somebody's trying to call you and you wanna stream directly to your phone. But we all know that this might be something that our 10 o'clock patient really wants, and the 11 o'clock patient would never want. So how do we use it? And how do we know when to fit it? So this is how you accept the call with tap control, just as a review, if you haven't seen it before.

This is the first time we've had an accelerometer in our devices for ReSound. We wanted to really make it make sense for users. So you can see her lightly tapping the side of her pinna, which, in turn, taps the side of her hearing aid. And she's able to pick up the phone that way. When she wants to hang up the phone, she just turns it off on the actual phone. So we decided to make it to only have one kind of functionality because we know inadvertent taps happen.

- That can definitely happen.

- And the last thing we want is for somebody to accidentally tap their side of their hearing aid and then put them into a streaming program that they didn't intend. So the only way this will actually work is if there's an incoming call happening and they do the double tap. So it's pretty nifty in that it will work for that. But what if you or your user doesn't want it, or you're not sure that they will be successful with it? Well, good news is you can turn it off. If you don't think that this is something that your client will use, you can turn it off right in the SmartFit software. It is under manual controls, you can see tap control.

It's enabled here so that it'll work on each side. This only works with the Micro RIE, by the way. So that means that a double tap on one side will stream the call bilaterally to both sides. You can even turn one of those off and just have the right hearing aid, for example, be the one with tap control, and vice versa. And again, it'll still stream bilaterally, or you can turn them both off if you want. Let's say that you set it up for your patient, they're super excited about it, but then they're like, oh, I had second thoughts, I don't wanna have it anymore. You can turn it off as a user in your app.

So you go into tap control and you can just change whether it's on or off.

- Nice.

- Yeah. So if the user decides, like, let's say you set it up for them for both ears and they only wanna answer the phone calls by tapping on the right side, they can turn off the left side unilaterally. And then they don't have to come back and see you for something small like that.

- That's great that they don't have to come back in, that they can change it themselves in the app.

- Exactly. And it gives them a lot of power, too. And that way, if they change their mind again, they can turn it back back on, exactly. Alright, we're gonna finish up today with a trick that actually will help everyone, not just users of hearing aids. And this just recently came off, I was at a conference, and we were having a discussion about how nice it could be if, especially somebody with hearing loss, could know who's calling on their phone by announcing it. And maybe this isn't a trick to other people, but we were discussing that this is the way that technology can really help people, especially since there's a lot of spam calls nowadays and you don't wanna be answering the phone call if it's one of those calls that you don't wanna answer.

- And if your phone's not near you and you can't see who's calling,

- Yeah, absolutely. You don't wanna have to run for your phone and try to get it. So we can now stream, you know, phone input into our hearing aids. We've been able to do that for a while, but you can actually make your phone, an iPhone or an Android phone, announce your caller, and you can do it in certain situations. So since there's a lot of different Android manufacturers out there, we didn't decide to show all of the ways that you would do this with Android phones, but with iPhone, it's just one operating system. So here's how you would do it for an iPhone user. So you go into the phone, and that's in your settings, and you click on announce calls, and the default is never.

And then you hit always for announcing calls, if you want it to always do it, or just headphones and car, or headphones only. And that'll set you up your setting. So that'll

make it a lot easier for you to know whether you should be picking up the phone or not, which is nice little tip and trick for everyone, not just--

- Yeah, I guess it works with earbuds, too. I've heard it come through when I've been wearing earbuds.

- Yeah. It's nice, especially in the car you're trying to drive.

- Absolutely. That's a great final tip. Thanks Tammy.

- Sure. So Jill, were there any other things that we wanted to mention today about tips, and tricks, and treats for the ReSound Nexia?

- Not that I can think of. I think we've pretty much covered all of them. Do we have any questions?

- We can have some questions now. Go ahead and put in your questions if you have any at this point.

- Let's see. It looks like somebody might be typing.

- Yeah. One coming in. Okay, so here's a question. What happens if you set on first time user onboarding but you want to get them up to a higher gain setting over time? What do you do?

- Oh, that's a good question. An easier way, instead of making changes to all the gain adjustments and changing some of your advanced features, you can switch them from first time user to experienced non-linear user. And that will change it, it even changes

some of the compression ratios, too. Because the first time user onboarding has, you know, so many settings in it just to make ensure comfort for your user.

- And that'll help you reach the targets that you're trying to reach to give the most benefit, right?

- Absolutely.

- Can you use Acceptance manager to get them gradually over time to that setting too?

- You can use that as well. That's an automatic feature that we have. But if they're coming back in to see you, I see that often where after somebody's acclimated on their own, we can change it. You know, when you see them back for their sixth month checkup, for example.

- Exactly. That's where they're gonna get all the benefits that we want them to have by fitting the application. But like Jill was saying before, it's so important that they can have initial acceptance to get over that first couple days when they're like, did I make a mistake? Is this okay? Does this sound all right? How do I feel about this? Getting them past the hump initially puts them on a good road towards success for their future benefit from hearing aids.

- Yeah. Gives them a good experience so they don't get unhappy with their hearing aids too easily.

- Exactly. Here's someone, if you disable the tap function for calls, can you use the aid push button to answer or reject a call? Yeah, you still can set up your push button like that.

- Absolutely.
- That's a great question. So you still have the ability to set up the push button to do what you wanted to do.
- Yeah, and that's in those manual controls that we were showing back with the CROS settings when I showed that screen. You can select those as well.
- Oh, here's another question. So talking about the receiver power, when you decide to go to a higher power receiver, do you have a recommendation for the low frequency thresholds where you would start to say, okay, we need to go to a higher power receiver?
- Do you have a recommendation?
- I do, actually. I use 60 dB HL in the low frequency thresholds as kind of a fence where after it gets to 60 dB or poorer in the low frequencies, that's when I go with a high power receiver, or an ultra power receiver, depending on those high frequency ones.
- That's a good cutoff, 60 dB.
- Yeah, because that way, they're definitely going to need that low frequency amplification from the high power receiver. And so the cost benefit of the frequency response there tends to lean more towards fitting 'em to the higher power receiver.
- That makes sense. And I've had a lot of luck with our encased receivers. I really like those, either a high power, ultra power encased if I have someone that has that degree of hearing loss in the low frequencies.

- That's a good point. I always forget about the encased ones. Those are good. Alright, any other questions? Well, I guess my next question, Jill, is what are you gonna be for Halloween?

- I still am finalizing my costume. What about you, Tammy?

- I'm just hoping it's not gonna snow. Today, in Chicago, we're gonna be getting some snow. We already got some this morning.

- It's snowing on the way in here today.

- They said this morning that over 200 million Americans are facing almost record breaking cold temperatures today across the country. If you all are in those areas, bundle up. And I hope that you have a good time today on Halloween with your trick or treaters. And we wanna thank you so much for spending your Halloween with us.

- Thanks, everyone. We really appreciate your attention.

- Thank you for indulging us as we have this little Halloween show going on today.

- Yeah, hope you learned something.

- Take care. And if you have any questions, feel free to reach out. My email is tstender@gnresound.com

- And mine is [jmecklenburger](mailto:jmecklenburger@gnresound.com), first initial, last name, @gnresound.com.

- Thanks and have a wonderful day.

- Thanks, everyone.