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Bluetooth Connectivity and Accessibility

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- [Instructor] Hello and welcome to our course on Bluetooth Connectivity and Accessibility. So before we dive into our course material today, let us quickly review our three main learner objectives. So our first one is that you will be able to name the various Bluetooth protocols, how they each work and the streaming capabilities of each. Next you'll be able to describe the various accessibility features available via both Apple and Android products, most notably those for hearing. And you will be able to demonstrate troubleshooting techniques for various connectivity and accessibility concerns. So we are going to go into some detail regarding Bluetooth connectivity specifically in Philips products, but first I want to quickly review the four protocols that you will see present in the HearLink products and how they are used.

So Bluetooth Low Energy is a data-only protocol that allows for the streaming of data between the Philips HearLink devices and wireless accessories such as the RC-A, the HearLink 2 app, and also allows for the wireless programming of the HearLink devices with the Noahlink Wireless. Then we see the proprietary Bluetooth Low Energy protocol. This is an open Bluetooth Low Energy specification that does include that ASHA, which is Audio Streaming for Hearing Aids. And this is a software solution that works in devices that run Android 10 and above, and it essentially provides just a different proprietary extension to the Bluetooth Low Energy to support that unidirectional streaming from a compatible Android device to a compatible hearing aid. And note that it is both a data and sound protocol, so it also does work of course with the TV-A and AudioClip as well. Then we see the Apple Bluetooth Low Energy specification. This is a protocol that was launched in 2014 and it is Apple's own proprietary Bluetooth Low Energy solution for hearing aids. And this is data and sound, and it did allow for one-way streaming between the phone and hearing aids. And if you do remember when this was introduced, one of the main features that was also introduced along with this protocol was the availability of Live Listen, which did allow your member to essentially turn their compatible iPhone or iPad into a remote mic without the need to buy any type of additional accessories. Then in early 2021 we did see Apple Bluetooth Low Energy Audio become introduced, and this is also, once again, a data and

sound type of protocol, and this was introduced for iPhone 11 or later and brought bi-directional streaming. So again, with the Apple Bluetooth Low Energy we saw the unidirectional streaming of sound, and now with the Apple Bluetooth Low Energy Audio, we are then seeing that bi-directional streaming of sound. So now that we are armed with a bit of knowledge surrounding the various Bluetooth protocols, let's turn to one of the most desired uses for connectivity in hearing aids, which is direct audio streaming. Direct audio streaming from modern Android smartphones is done via Audio Streaming for Hearing Aids, or ASHA, and is available for all Philips BTE style devices and Philips HearLink 9030 custom ITC, ITE styles that do of course contain the 2.4 gigahertz technology. So again, it is possible through the Audio Streaming for Hearing Aids, or ASHA. Minimum requirements would be the Android operating system 10. The device must have Bluetooth 5.0 and that ASHA is enabled by the smartphone manufacturer.

So again, just to reiterate, the Android phone must be ASHA compatible and have this protocol active, which will then allow your member to stream phone calls and media. If the member does want to quickly know if their phone is ASHA compatible, they can connect their Philips HearLink devices via the HearLink 2 app and then return to the Bluetooth menu of the phone. And if their Philips HearLink devices are shown as a pair, the phone is most likely ASHA compatible. And then if they're listed individually on two separate lines, this does mean that the phone is most likely not ASHA compatible. It is important to note that your member will automatically be able to stream media and calls via an ASHA compatible phone once connected in the HearLink 2 app. For Apple devices, your member can either use direct streaming or bi-directional streaming, and this of course will depend upon which Philips device they have, as older devices such as the HearLink 9010 are not compatible with bi-directional streaming. And it will also depend upon which Apple device that they have, as bi-directional streaming is only available with the iPhone 11 and later. It is important to always check the compatibility page or use the QR code for the compatibility checker for the most up-to-date listing of compatible devices for of course both Apple and Android compatibility concerns. So in addition to direct audio streaming, Bluetooth connectivity also allows for a multitude of accessibility features for your

members. We are going to begin by first looking at the various accessibility features available to those members using a compatible iPhone. As many of you know, Made for iPhone, or MFi, is a feature that allows hearing aids with the proprietary Apple Bluetooth Low Energy and Apple Bluetooth Low Energy Audio protocols to connect directly for audio streaming and adjustment of various settings. So to connect to a Made for iPhone device, you go to Settings, Accessibility, and then Hearing Devices, and connecting in this way does allow the member to connect and use the MFi hearing aids with their hearing instrument and adjust the settings. If the device is eligible for hands-free communication, so if the HearLink device is compatible and the iPhone is compatible as well, you do connect in the usual way via the Settings menu. So again, you go to Settings, Accessibility, Hearing Devices.

So again, there's no change from the current method with relation to connecting, and hands-free is activated by default. So by default, the member's voice will be picked up by one of the hearing instrument's microphones. And note that the only setting truly available with reference to hands-free communication on the iPhone is Mic Input. Mic Input is a setting that is exclusive to hands-free communication and will essentially control if calls are directed to the hearing instruments or not. The default setting is on, so therefore once hearing aids are connected to a compatible iPhone or iPad, your member will by default now receive calls directly through their hearing instruments. Now, when actively in a call, your member can switch between audio routing options. This is very helpful when they or the person on the other end of the line are having difficulty hearing if hands-free is active. This can also be helpful if they want to hand the phone off to someone else during the call and they need to switch to speaker phone or just to the phone mic itself. It is important to note that the standard Bluetooth speakers, such as hands-free car links and potentially home Bluetooth speakers, do tend to override options and will often grab calls, especially if they are currently connected to hearing instruments. So if they're speaking on a phone call with the call connected to their hearing aids and they perhaps get into their car and turn the car on, there is a very high chance that the call will automatically be transferred to their car Bluetooth or say to a Bluetooth speaker in their living room, et cetera, if those

connections are available. The available Mic Input options include on or off. If you do have on chosen, the device chooses the side with the strongest connection at that moment, and if off is chosen, the member will use the device microphone to speak into for their own voice. Note that this menu is only available when the member is not in a phone call. When a call is active, this menu will not be available. So our next section does focus on a variety of additional iPhone features, and some can be used with the Philips HearLink devices while others do function independent of a compatible hearing instrument. Accessing hearing from the Control Center does give your member quick and easy access to the iPhone remote for their connected HearLink devices. Your member now has access to options such as volume settings. Note that there is no access to change binaural or monaural settings in this view. You can change programs, you can access Background Sounds, Live Listen, Mic Input, and this menu is not visible if hearing instruments are not actively connected to the phone. Let's discuss a few of these features in a bit more detail over the next few slides. So Background Sounds.

This is a feature that is available with or without a connection to hearing instruments or any other type of headphone. And essentially Apple states that these are calming sounds available to help mask unwanted environmental noise and to help minimize distractions with the intention of helping your member focus and/or rest. Many times this might be thought of as a type of masking noise for tinnitus, but truly it is not. It is more so just intended to help distract from noises in the environment and it is not intended to help with tinnitus. So as seen previously, Background Sounds can be accessed via the Control Center and it also can be accessed through accessibility shortcuts. However, your member can also access this feature through Settings, Accessibility, and Audio/Visual. Here your member can choose the sound and change the overall volume of the sound as well. And other options include Use When Media is Playing, which will mix the Background Sound in even if they're streaming. And then Volume With Media sets the level of the Background Sound versus the streamed media Stop Sounds When Locked will stop the Background Sounds if the phone locks, and if left unselected, the Background Sound will continue even if the phone locks. So that might be a good option, say if they want to fall asleep to the

sound. Next we see Live Listen. Live Listen is a native iPhone feature that enables your member to essentially turn their phone into a remote mic, and it does work with compatible hearing aids, AirPods, and Beats. Let's look at how your member can access this feature as well. So there are two ways your member can access Live Listen within the phone itself. Note that this feature can also be accessed via the Philips HearLink 2 app, which would be the third way in which your member can access Live Listen. However, in the phone itself, the first option is through Settings, Accessibility, and then Hearing Devices. And of course, the second option for your member is through the Control Center. Your member will swipe down from the top right corner of the screen to access the Control Center and touch on the hearing icon. And then once Live Listen is activated, the icon itself will show as blue and it is noted as being on. Now, while we will not go into detail regarding the features listed here, they are definitely worth noting, as they do function in various ways to assist your member in their daily lives and interactions. I would encourage you to become familiar with these features and how they work, so if necessary you could counsel your member on their availability.

These features are those such as Sound Recognition to be able to potentially alert your member if it recognizes a sound in the environment such as glass breaking, a doorbell, a door knock, a baby crying, a kettle going off, et cetera. The RTT/TTY. So this can change a voice message to text or a voice call to text messaging for your member. Subtitles/Captioning can add subtitles or captioning to a video or any type of post or anything that it comes across. Live Captions can add live captions and listen for sounds in the environment, and it essentially just provides live captioning as somebody speaks to them. Announce Notifications can announce that somebody is calling or announce that a text message is coming in. Auto-Answer can set a timer and automatically answer a incoming call after a certain amount of time if left unanswered. Sounds and Haptics can increase the volume of a ring, can increase the intensity of the vibration if the phone is on vibrate. LED Flash can give a visual indication of a call coming in or a text message, et cetera. And then FaceTime now does have various types of accessibility features as well to help with speech understanding, to also help with captioning. So those features are

worthwhile noting to be able to counsel your member on. So we have discussed a variety of accessibility features within the iPhone, and now I would like to switch gears a bit and look at the Android phone and what features are available to those members who do have this type of smartphone, and then of course how to access those as well. So first let's look at pairing to an Android phone. So pairing to an Android phone with the HearLink devices is very simple and easy. You just simply want to first download and install the HearLink 2 app. Then you open the app, you place the hearing aids into pairing mode by opening and closing those battery doors or placing them in and out of the charging unit. Place them about four to six inches away from the phone and touch on Pair Now, and then everything else goes through the app and through the pairing process. Once the desired hearing instruments are found in the app, the phone will now show the name of the detected devices and will request to pair.

So again, you will pair through the app and then the devices will be shown in the phone's Bluetooth menu as well. So it will be evident to your member once a successful connection is made, as the instruments will be visible and options will be listed for them. Now, with an Android phone, your member can actually rename the hearing instruments within the phone itself, and to do this, your member just simply touches on Rename and then they can type in a new label per se for their Philips HearLink devices. So if you have them named like Thomas and they want them to be named Tom, they can rename them in their phone for an Android device. Here we see the volume control settings. Now again, these are the native controls within the Android phone. We're not quite so much looking at the HearLink 2 app, which of course has all of these controls in and of itself as well. But this is just the native controls within the Android phone. So it does have an independent volume control, also has the binaural volume control you can see there, and it's a slider bar only, so it's no numerical values. Streaming options. You can mute or stop audio streaming to a single hearing instrument or you can mute or stop it to both hearing instruments. You can see that toggle switch there. So it's just letting you know left hearing aid, right hearing aid, which streaming option do you want. Another option available to your member is to stay connected to the Android device for remote control use in the app, et cetera, but not

to use their hearing instrument for streaming. Now, there are several ways to accomplish disconnecting the hearing instruments but not completely removing the Bluetooth pairing. So the first way would be to touch on the ear icon to temporarily suspend the Bluetooth connection. So you can see touch that and it says Bluetooth Connection With Test Ended. Then you can also touch on the cog wheel and this gives your member several options and they can choose Disconnect, and this will temporarily interrupt the Bluetooth connection. So again, it is maintaining the connection to the phone, it's not unpairing it. So they can still utilize the app for remote control purposes, but it's going to disconnect for streaming purposes. So the following section here will note features in Android smartphones that do address accessibility and don't require any type of connection to a Philips HearLink device per se. However, a few can be used in conjunction with compatible hearing instruments. So here we see listed the additional features that are available to those members who are connected to a compatible Android smartphone.

Many of these features may look familiar, as they are somewhat like those that are found within an iPhone. Once again, I do encourage you to become familiar with these features so you are able to speak to their availability and their use should it become necessary. Within Android, we do have options available, such as the variety of streaming options, as we briefly discussed in some previous slides. There are hearing enhancements, these options within the Android menu, Real Time Text, Live Transcribe, Live Caption, sound detectors, amplify ambient sound, Adapt Sound, hearing test, sounds and vibration, flash notification, and then of course Google Duo. So next I would like to turn our focus to the Philips HearLink 2 app. So we talked a lot about the native features of both the iPhone and the Android devices, and as many of you are aware, some time ago Philips did combine our two apps, the HearLink and HearLink Connect into one app, for the convenience and benefit of the member. So now Philips does offer one single app which features both the remote control functionality, again, we talked about those features with the native control functions, but now we have these functions that we're going to discuss within the HearLink 2 app, but now it's combined with the remote control functionality and the Remote Fitting functionality into one single app, which is of course the HearLink 2 app.

As a review, here you see the sound menu, and this area of the app really does contain the bulk of the remote control functions. And these include the ability to change volume, the ability to select programs, access a TV-A or remote mic, make changes to the streaming equalizer when available, and also make changes to the sound equalizer. So the differences between the two of those is with the sound equalizer, that is going to make adjustments to the sound coming in through the hearing aid microphones, and the streaming equalizer is going to make adjustments to sound coming in via the streaming input. Also please note, if you do want more detailed information than I'm going to provide today regarding the HearLink 2 app, we do have two courses available via the SBO Philips Portal on AudiologyOnline, which goes into great detail regarding the HearLink 2 app and all of the features. Here we see the hearing aids menu, and this gives the member access to battery level, which was recently updated to now show time remaining for all HearLink 9030 and 9040 rechargeable styles.

We also have Find my hearing aids, the Hearing aid updates for minor firmware updates, Hearing aids settings, and an option that does allow the member to pair new hearing aids. And then you can also see the More menu, which is the More benefits. This menu gives access to items such as the Philips Journal feature, Remote Fitting and account information, Help & Support for troubleshooting, the member's profile information, important news, and all different app information, such as app version, build, et cetera. So we covered a lot of information regarding the Philips HearLink 2 app, just briefly looked at remote control functions and some of the advanced features, but the HearLink 2 app does also give the added convenience of accessing Remote Fitting appointments from within the same easy-to-use app. So let's look at the Remote Fitting side of the HearLink 2 app. So within Remote Fitting, you can connect to a Remote Fitting to adjust the member's hearing aids. And the HCP and member interface has not changed, so the HearLink 2 app has gone through a variety of version updates, however, the interface for Remote Fitting has not changed. And the member can sign in with an existing account or create a new user account via this Remote Fitting section. Within the More menu, the member will have access to their profile information. If the member is signed into their account for Remote

Fitting, the email address will be displayed here. This is great if they forget maybe which email address they utilized to create the account. You can just have them navigate to this area of the app and they can tell you which email address is being used. If you do delete the account from this page, it will completely remove the member information from the account. So it's not like signing out, it is deleting the account. So it will actually delete the account from the app and they will have to create an account again. So just a quick note about that. When a member does go to enter a Remote Fitting session via the app, it will remind them that appointment is necessary, and if they proceed they will be first placed into a waiting room until you, the HCP, is signed in and ready for the appointment. And then then of course, once the HCP or once you're ready, you'll both join the appointment and the session can begin. So you can see kind of that waiting room phase with the circle, and then once everybody is joined and ready, you are connected.

During this session, the member does have access to video, audio, and text communication and can enable or disable any of these at any time throughout the Remote Fitting session. So if they don't want their video accessible, they just don't want you to see them that day, they can just turn off the camera and they can either just talk to you or text you throughout the Remote Fitting session. The connection status of the hearing instruments will also be displayed to ensure that the connection is maintained throughout. So as changes are made, they can be uploaded and saved. So a constant status of the devices is shown throughout the session so that you can keep track of exactly what is going on with reference to the connection to your member's hearing aids. So the Philips HearLink 2 app truly has been a very exciting addition to the Philips connectivity portfolio, and it continues to offer an opportunity to continue to introduce members to Remote Fitting services. There's no longer a need for members to download two separate apps. Instead, one app is used for two purposes, making the introduction of looking to remote services easy once a member has downloaded the HearLink 2 app for remote control purposes. There are many benefits to Remote Fitting with the HearLink 2 app, and this could include increased member service and satisfaction, increased access to convenience and time efficiency, an area of opportunity as we continue to focus on virtual

appointments and remote services, and of course ease of use and counseling as we move into that single app for multiple purposes. Another recent and exciting update to the Philips HearLink 2 app is of course the compatibility with the Apple Watch. The Philips HearLink 2 app for Apple Watch does offer many of the same functionalities as the HearLink 2 app for iPhone, and these features are available on Apple Watch Series 4 or later and Watch operating system 8 or later. So those are the two caveats and two kind of requirements that must be met. In order to adjust the hearing aids via the Apple Watch, the hearing aids need to be connected to the phone, since there is no direct connection between the hearing aids and the Apple Watch. Again, let me reiterate, there is no direct pairing or connection of the hearing aids to the watch. So without the phone, the two devices, which are the hearing aids and the watch, cannot talk to each other. Essentially the phone works as the link or the intermediary device allowing the Apple Watch and the hearing aids to communicate with each other, okay?

So the watch and the hearing aids don't talk. The watch talks to the phone, the phone talks to the hearing aids, so it's kind of that chain of command. Also, the Apple Watch needs to be within Bluetooth connection range of the iPhone to be able to control and adjust the hearing aids, so that connection and that link always needs to be maintained. The Philips HearLink 2 app for the Apple Watch does have the same look and feel as the app for the iPhone. The General Philips HearLink 2 app screen is used to change program, to adjust volume, and to mute and unmute the hearing aids. The hearing aid volume can be increased or decreased individually or as a pair, and how this is done on the watch depends on how they're set or displayed in the Philips HearLink 2 app on the iPhone. To make volume adjustments, you either tap the plus or you tap the minus, and that increases or decreases volume respectively. And then to mute the hearing aids, you just simply tap the mute button. To do it individually, like if they're displayed individually, you can tap the minus button until it mutes the hearing aid as well. If adjusting as a pair, you can also adjust the volume with the crown or the knob on the side of the watch. Changing the listening program is also done from the General screen, and to change programs you simply tap the P1 or that little icon in the center, and this enters the program

screen and then the member can then scroll through the programs and just tap on the desired program that they want to select. The member can also scroll through the programs by turning that digital crown or that knob or the dial on the side of the watch. If they are using an accessory such as a TV adapter or an AudioClip, it is possible to adjust volume for both the streamed and the surrounding sounds in the dedicated accessory programs. The volume sliders are split over two screens in the Apple Watch, one for surrounding sounds and one for streamed sounds. The member needs to swipe to access the available screens. When using an accessory, volume adjustments and muting the sounds are performed exactly the same way as they did with just the general program. So again, plus, minus, you know, tap plus for increase, tap minus for decrease, the mute, et cetera. Swiping left from the General Philips HearLink 2 screen also allows the member to access the Options menu.

You'll notice that the screen position does change, and this is just indicated at the bottom of the watch screen. You can see the dots at the bottom of the watch screen, and that indicates position change. Here it is possible to deactivate the Remote microphone using the toggle switch. It is only possible to deactivate the Remote microphone from the Apple Watch if it has been activated via the HearLink 2 app on the phone and it's currently activated. So it can only be activated from the phone, but it is possible to deactivate it from the Apple Watch app. From the General screen, members can also check the battery levels for both hearing aids by swiping to the right. Again, as the member changes screens, this will be indicated by the bottom of the watch face. And battery status is only displayed as a percentage on the Apple Watch, so you'll only see battery percentage. The Apple Watch also has a special feature known as a complication, and this is essentially just a tiny bit of information that is available from apps that appear in the corners of a watch face. And essentially, any feature that displays information beyond hours, minutes, and seconds is known as a complication. To quickly access the Philips HearLink 2 app from the watch face, your member can set up a complication. However, only certain watch faces have these complications available and the watch face will dictate how many, what types of complications, where the complications are found, et cetera. Tapping them will then take

the member to the specific Philips HearLink 2 app watch screen. As a quick note, the app must be running in the background on the phone for this feature to be accessible. Now, in total, two complications are available for the HearLink 2 app: battery status, which will at all times let the member know what the battery level status is of their devices, and program status. This will let the member know what program they are currently in with their hearing aids. Adding the battery level status and program to the complication is done through the Apple Watch app on the iPhone in the complications section. And to set these up, just select the desired watch face from the faces and scroll down to Complications. Again, not all faces have complications, so this will be dictated by the watch face that you choose. However, if allowed, simply tap where you want the complication to be, scroll through the complications, select Battery level or Current program under Philips HearLink 2, and of course then this can be repeated for top right and then select the complication. And once you select them, whichever ones that you have selected for the specific area of the watch face, that is now what will be shown on the watch face when it is selected as the current watch face for the Apple Watch.

The Philips HearLink 2 app for Apple Watch does also include what is known as contextual help, and this is an action or notification that is given to provide specific help at the exact time that it is needed. One example shown here is when connection to the hearing aids is lost, the member is prompted to reconnect. So they're told, you know, oh, connection is lost, connect your hearing aids to your device. This could occur if the hearing aids lose connection with the Philips HearLink 2 app on the iPhone, or perhaps the Philips HearLink 2 app on the iPhone is not open or running in the background. Furthermore, when connected to a streaming device such as a TV adapter or AudioClip, a notification will replace the streaming volume control screen, informing the member that streaming from the connected device will be paused when streaming sound from another source begins. And this could happen, for example, in the case where maybe a phone call is received while they are streaming from say like a TV-A or an AudioClip. The last topic that I would like to discuss circles slightly back to hands-free communication, and members with compatible Philips hearing aids or other compatible Bluetooth headsets and an Apple

Watch may want to use their watch when receiving a call. In this case, there are a few things that you do need to be aware of. As we know, when answering a call from the phone, choosing the audio option will allow the member to change the output device. Now, this can range from the phone itself, to the speaker phone, to the hearing aids, or even perhaps to another connected Bluetooth speaker. Note that it is not possible to change the output to the Apple Watch from the iPhone. When answering a call from the Apple Watch, the sound is always sent through the Apple Watch loudspeaker. There are no options on the Apple Watch to change the output device, and it is important to note that the caller's voice cannot be streamed directly to the hearing aids, as there is no direct connection between the Apple Watch and the hearing aids, as we described earlier in the presentation. So if the member has answered the call on the Apple Watch and wants the call streamed to their hearing aids, they can change the output option from the iPhone call screen while they are in the call.

The fact that the user cannot use the Apple Watch to pick up the call and have it streamed to the hearing aids is an Apple limitation and absolutely does not relate to the Philips hearing aid design. So that wraps up our discussion of the various accessibility features available for both Apple and Android smartphones and the features offered by Philips via the HearLink 2 app. So now we're going to move on and discuss some Bluetooth connectivity troubleshooting techniques. Before we go and move into general Bluetooth troubleshooting techniques, it is worth mentioning that to enhance the member experience, the Philips HearLink 2 app has increased its level of support with reference to connectivity. So the app itself will alert your member any time when connection is lost, and it does provide a robust amount of step-by-step troubleshooting to aid in getting them reconnected quickly and easily. So within the app you will find various common fixes that are suggested to your member, and these fixes can be tried to really quickly attempt to regain connection between their hearing instruments and the smartphone. These suggestions include restarting the hearing instruments, restarting the app, repairing with the phone, avoiding placing the phone in their back pocket, keeping the phone closer, changing phone placement to perhaps gain a stronger signal, turning off additional

Bluetooth devices, and checking the batteries. This section also does provide a direct link to contacting the consumer care team via email, so that if they do want to reach out and try to get some support, they have that option as well. So in addition to the robust support provided by the HearLink 2 app, let's go ahead and spend some time just reviewing common troubleshooting techniques that can be used if your member does have difficulty gaining that initial connection between their hearing instruments and their smartphone. So the number one thing that they will want to do is always, always ensure that their operating system is up to date. I know that some members sometimes kind of want to wait a little bit before updating their iOS or their Android system, and truly this can wreak a little bit of havoc sometimes. So they do always want to make sure that their iOS and Android operating system are 100% up to date. So if they do have a pending update, it is possible that they may have some difficulties with Bluetooth connectivity with their hearing devices. So that's number one, make sure that their operating system is up to date. Use a new battery or a fully-charged battery.

I know this is kind of one of those things that you feel that I probably don't even need to say, but sometimes, especially at the tail end, or maybe if they haven't been diligent with charging their battery, the battery might not have a very good charge left. And especially with the lithium ion batteries and even with the zinc air as they get towards end of life, one of those kind of like battery saving things that they do to kind of stop draining the charge so much is it cuts off that Bluetooth connectivity and that streaming capability. So while the hearing aid may still be working, it's not going to allow them to stream, because maybe they only have like 5% of battery left or 10% of battery left, or maybe one hour of battery left for the zinc air. So again, always use that new battery or a fully-charged lithium ion battery. Ideal pairing distance is approximately four to six inches. Sometimes it can be too far, sometimes it can be too close. So I have seen a lot of people who go to pair their hearing aids to their phone and they actually set the hearing aids on top of the phone. Move the hearing aids about four to six inches away. That is the ideal pairing distance. Delete or forget any unnecessary Bluetooth pairings in the Bluetooth menu. This can include previous hearing devices. So maybe they had a demo set, maybe they have old

hearing aids, maybe they have a ton of headphones or Bluetooth speakers or like rental cars, what have you in their Bluetooth menu. We recommend to have less than seven connections, but ideally only have what you need. So if you don't need seven connections, if you only need three connections, less is better. Here we can see some examples of Bluetooth menus for both Apple and Android devices. Now, while both devices do have under the seven recommended maximum number, we might want to consider removing some of these devices if the member is having some connectivity options. So again, we can see that both of 'em have, you know, several Bluetooth devices connected, and it would just be worth kind of a talking, not a talking, that sounds bad, but worth a conversation and saying, hey, you know, are all of these necessary? Is there anything that we can delete here to see if maybe we can help that Bluetooth connection. So tips for initial connection and pairing.

Specifically with an Apple device, if the Hearing Devices menu does show only one device connecting or devices as Not Paired or Not Connected, the best thing to do is simply just choose the devices and scroll to Forget the device. Just start over. Don't keep trying, don't, you know, open the battery door, close the battery door, or put 'em in the charger, take 'em outta the charger. Just forget the device and start again. Next thing you can do is reboot the phone completely and retry the pairing steps. The phone is just like anything. Every once in a while it has to be shut down and started back up again. And I know that many of us, myself included, often forget to just shut our phone down every so often and reboot it. So it could be a matter of you have not shut that phone down for over a month and it just needs to be shut down completely and started back up. So again, reboot the phone and retry the pairing steps. If you're having difficulty pairing in the app for an iPhone, always ensure the devices are connected to the phone prior to connecting in the app. So absolutely you have to connect it in the native menu first before going to the app. And then, like for an Android device, if you're having difficulty pairing in the app, you can just delete the app, reboot the phone, reinstall the app, and then retry those pairing steps again. And then another step you can try is ensure the hearing instruments, of course, are not actively connected to another phone or to another Bluetooth device. So

make sure that they aren't having that connection going elsewhere so that the phone is not able to grab that Bluetooth connection and pair to the phone. For intermittent or inconsistent connection, again, we also want to ensure the operating system is up to date and you have the most recent firmware version. And then removing the hearing instruments from the phone, rebooting the phone, and repairing. And that is how you do it in an Apple phone, and instructions on how to do it in the Android phone as well. So again, removing, rebooting, repairing, clean slate. Tips for intermittent or inconsistent connection. So let's say if you are connected, so you are able to get that connection with the devices, however, it is disconnecting or the connection is inconsistent, you can try deleting the devices. So either go to the menu, go to the app, et cetera, delete the devices, depending if you have an iPhone or Android, delete the app itself, reboot the phone, reinstall the app, and then repair the devices.

So it's basically kind of starting from scratch. Let's do a clean slate. You wanna get rid of the devices, get rid of the app, shut down the phone completely, reboot it. Now put the app back on and then put the hearing aids back on. So again, it's just starting with a clean slate, 'cause something is going on that we're not getting that consistent connection. And then of course, the last resort is to reset network settings. The one thing with this is that all stored passwords and Bluetooth pairings will be lost, so you just wanna ensure that your member is comfortable with performing this step. And here is shown two ways that you can do this depending if you have an Apple or Android phone. And again, this is truly that last resort type of troubleshooting step when all else has failed and your member really wants you to try and exhaust every last option. This isn't something that I would ever go straight to, but I, again, would just use this as a last resort if your member does want you to exhaust every single last option. So in summary, we talked a lot about Bluetooth today, accessibility, connectivity. The Philips HearLink hearing aids and accessories do work seamlessly with the four available Bluetooth protocols that we discussed at the beginning of the presentation. Direct streaming is available for both Apple and Android devices. Additional features for an enhanced member experience are available via the HearLink 2 app, which is now also compatible with the Apple Watch. Remote Fitting is available for

seamless member follow-up. And again, as we discussed, Remote Fitting is available via that HearLink 2 app now, which has both features combined into one, that remote control and Remote Fitting use. And extensive Bluetooth and connectivity troubleshooting help is available to both you and your members. This troubleshooting help is available via the HearLink 2 app in the troubleshooting section and also through the consumer care line. And then we do have the different consumer help tools available via the portal. Many of the troubleshooting tips that we went over today are available in the Consumer Connectivity Guide that can be printed and even given to the members if needed. So I wanna thank you so much for joining us today, and if you do have any further questions, please feel free to reach out via the contact information listed.