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The flexibility of Titanium

Recorded Mar 23, 2020

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- [Alyssa] Hello, everyone, how are you? Thank you for joining today. My name's Alyssa Ricevuto and I am a Phonak clinical trainer. I hope that you're all doing well, that you're staying safe and that you're all healthy. I also wanted to say that we're going to be offering a variety of virtual courses over the next few weeks, so please be sure to check your email, check on here, on Audiology Online. You'll be able to take advantage of all of those offerings for you. Today, we're going to be discussing the flexibility of titanium about our unique product offering, the Virto M. I put my email here, Alyssa.Ricevute@Phonak.com, so please let me know if you have any questions, concerns, you need support. We're happy to help you here. And then the PDF of this course is available here on the bottom left of the page, and the quiz will be available shortly after we finish today.

As always, if you have questions as we go, I'm here. I will answer them in real time. Just put them in that Q&A box, and I'm happy to answer any questions that you have. Today, our learning outcomes are going to be able to summarize the whole Virto M offerings, the Virto M-Titanium benefits, and we'll talk about the Easyview Otoblock, one of my favorites and the Titanium FitGuide. I'll give you some tips to successfully fit that. So according to a Phonak needs survey which is conducted, and this one was conducted in the spring of 2016, when we asked new users what their number one priority for hearing aids are 62% of patients said that they wanted an invisible device, and that's really no surprise. New users definitely want something invisible. Phonak has been around over 70 years. Our commitment to continuous improvements have really led to our success. We've come a long way from our early Claro custom product to our lineup of all custom technologies today that are on the Marvel line. We know statistically that the average person waits anywhere between four to six years before they purchase their first set of hearing aids, and 31% of people age 45 to 64 years old who have hearing loss actually use hearing aids. So we now offer our smallest, our most durable custom product, the Virto Marvel Titanium. Our Titanium is a Red Dot Award winner. It's an internationally awarded design award for custom technology and we won that in 2018. Our Virto M-Titanium is available in our top two technology levels.

So while binaural voice stream technology is not available due to size, we will still find that the Virto M-Titanium 90 is capable of accommodating an active and a dynamic lifestyle. The 90-level technology has six different autosense programs including comfort and echo and music. And then our are Virto M-Titanium 70 includes four autosense programs. Both of our technology levels that we offer with our Titanium will give you that autosense 3.0 and it will switch and blend to create the best possible solution for your listener's environment. For patients who want a T-coil option, T-coil is available as an option in the Virto M-Titanium, and it's also available in two other form factors of acrylic. We'll talk a little bit about those.

So I know, today, we're talking about the Virto M-Titanium, but I don't wanna forget to talk about our three other custom Marvel products. So we have the Virto M-10 non-wireless and then the Virto M-312 non-wireless. These are great for patients who may want a small device, but maybe the titanium isn't important to them. They want something made out of acrylic. Connectivity, maybe, is not a priority to them. So then our 10 model here will give you about four to five days of battery life. And then our M-312 form factor, that will give you about five to seven days. And then of course, one of my favorites is the Virto Marvel 312 and that's going to allow for that complete connectivity to both Apple, to android, to all your products, tablets, iPads, computers, over a billion of Bluetooth technologies. You'll get the option of your multiple colors, of the multiple shell colors, multiple faceplate colors. The Marvel Black, the hearing aid that's really made to look like a hearable, if that's not what you wanna choose for your patients, again, you're able to give them different shell options, cocoa, pink, brown, the white, the transparent, the red transparent, the blue transparent, and then a host of faceplate color options. We really found that our Virto Marvel Black appeals to a younger age group, and so it might not be for all of our patients. So again, for any patient that wants that connectivity they want this Virto M-312. All of our acrylic models, so the M-312 non-wireless and then the M-10 non-wireless, as well as the Virto M-312, come in all four technology levels: the 30, the 50, the 70, and the 90. We did have a question come in, and the question was, are any closed captions available?

So we have and we can talk a little bit about this, I can make a note to talk about myCall-to-Text app. That's available on an Apple, on an android. It's a great app that gives you real-time captioning, and so anybody can use this app. The benefit of it with our streaming products is that you can hear binaurally through the Virto M-312, but you can use this on speakerphone. You can use this with another manufacturer if you want. So again, it's that myCall-to-Text app. That's our app that's available for all customs, as well as our RIC form factors or our BTE form factors. So yes, thank you for that question. So there's so many advantages for wearing a deep fitting IIC, and that's really what you get with the Marvel Titanium. For patients who want a real discrete option, for patients who have an active lifestyle, maybe they want something tiny, but they also want durability, and they want this IIC form factor. It's ideal for patients who had occlusion concerns maybe in the past, or for patients who need an option to help reduce wind noise. Virto M Titanium is just such a great option for so many patients, but especially for those who had some issues with occlusion in the past.

We know the majority of the market really sells RIC products, but customs are just such a great way to differentiate you and your practice in this day and age. Customs are an attractive option for first-time users. With the Virto technologies we don't only customize the hearing aids on the outside, but we also customize hearing aids on the inside. Virto can be made nearly or completely invisible based on your patient's ear size. Custom hearing aids are really comfortable and they allow for that natural sound quality. You can build them with large vents. And a lot of the time patients just have some dexterity issues and so just having this really tiny device makes it really easy to handle. You've got that one part to insert and that one part to remove. And like I said, the wind noise is significantly reduced. It also makes phone use really easy and simple. And then IIC technology is just a great choice for certain professions. So I fit a lot of firefighters in the past, a lot of physicians, a lot of nurses. When you have to have somebody wear a stethoscope every day, it sits so deeply in the ear it really doesn't interfere. So just a lot of great options. People who ride bikes or motorcycles, it's just a great solution. Titanium really allows us at Phonak to make your patients a device

that's actually 26% smaller than acrylic, and it's 50% thinner than the acrylic shell which is going to allow for an increased fitting rate of 64%. So it fits more patients now because it's so much smaller than it used to be. In the past, IP ratings were really only for behind-the-ear instruments. So this is one of the first times that a custom device has ever been rated an IP68 rating, which means it's dust-tight. It's water resistance, it's water resistant, and we do use a Cerustop as our medial wax protection. So of course, the wicked friend of our hearing aids is always cerumen, so this device is still vulnerable to cerumen, but it is airtight, it is dust tight. The Titanium is 15 times stronger than acrylic, so it means fewer repairs due to the cracked or broken shells. So how many times do you have to like have your patient come in, fix that for them. They have to wait for it. You have to send it out. They have to be either without a technology or you put them in something they don't really want to wear. So the less repairs means they have more time hearing. And you might be interested to know that our Titanium is made, or how our power to Titanium is made.

So I wanna take a look at how the Virto M-Titanium is created at our global competency center. I love the behind-the-scenes of things, so let's kind of view that. I think that's just so super cool. I love to see the behind-the-scenes of how technology's made, and there's more pictures of that coming up. So if you love stuff like that like me, then you'll like the rest of this presentation. So this is our fitting ranges for the Virto Marvel Titanium. You have three receiver options. You can do the M receiver, the P receiver, the SP receiver. We're really fitting mild to severe hearing losses with this technology level. And then a nice view of our rapid shell modeling, our RSM, done to place the receiver to help make the smallest titanium device for your patients. Since the launch of our Virto B-Titanium, which was in March of 2017, patients have really been able to benefit from a more discreet and durable custom hearing aid. However, with Virto B there were some anatomical limitations of patient ear canals that really didn't allow for the titanium to be built as small as it is today. And now, because of some improvements that we were able to create and that we're going to discuss, we're really able to build even smaller Virto M-Titanium. The Virto M-Titanium is so small

because of the integrated battery module. The entire black battery door here and this little blue section, this means that there's no more tiny clear mic guards. I'm hoping you're going, "Yay!" at home, because that was really frustrating for me trying to change those tiny little clear mic guards. They would flip off and flick off and I couldn't find them. It was very frustrating. But the integrated battery microphone is really gonna make opening the door easier. It's going to make it easier to clean the microphones. So our microphone is up here, so you'll be able to brush out any debris or anything that might be in them just simply that way. And because we have this modular design and the microphone is integrated into that battery tub, it's going to provide extra protection from moisture, from debris. And then again, if you have to replace the whole door, this whole door will come off and you can replace that in the office. All of our modules will be colored red and blue, so this is a left ear, and they're really easy to differentiate for our patients to look at it and know what ear is which. This new modular design is going to save 1.2 millimeters in height compared to just a traditional acrylic faceplate. So the hearing aid can fit deeper and be made even smaller.

So smaller electronics means that we have, this is compared to the Virto V. So if you remember, our Virto Nano IIC, that was our first acrylic option. But now, our electronics are 60% smaller and titanium. We've really been able to take advantage of three main space-saving features: that titanium shell which is thinner and smaller but more durable, the integrated microphone, and then that battery module that are all together, and now our smaller electronics. This really is gonna let us build a smaller IIC by 26%. And like I said, it increases our fitting rate by 64%. So maybe some patients that weren't a candidate in the past can now fit into Titanium. With smaller electronics, this is going to allow for more space to accommodate a larger vent for patients who have reported occlusion issues or a larger receiver up to an SP receiver to fit patients with a severe loss. So with our Titanium we're able to build the largest vent from Phonak which is our AOV-O, our acoustically optimized vent open. This is a great side-by-side to see how large a vent can be built with titanium. So I draw on it here. This is the vent right here. If we cut right through and then look how big this vent is with the Virto M-

Titanium. So if your patient has those great low frequencies or if you're worried that they might have occlusion, maybe when you were testing them in the booth, they complained that they didn't like the insert earphones, our acoustically optimized vent O most open is really your best vent option for your patients, the best build. And there are limitations when we build with acrylic, we can't do this AOV-O, but with titanium, we can fit with an AOV-O. We can build that on a titanium shell. And then based on our internal fit rate study, 60% of ears were anatomical candidates for an SP receiver with our IIC titanium form factor. So that's very impressive considering you worry sometimes when you look at ears and you're not sure if they're gonna fit or not just based on the ear size itself. But, our internal fit rate shows that it's very possible to make that ear work. Battery life is 20% better than our Venture platform. So if you remember that, we're going to get a lot more battery life in our current Marvel platform. And extra efficiency is really a combination of the improvements that we've made: that integrated microphone module, the smaller and more efficient microchip, and then our GMR, which is the magnetic switching mechanism.

And I'll show you that option if you do order that for your patients. And of course, the battery life will be hearing loss dependent, so it might be less than this if you're really putting a lot of power into a small space. But all of this is really inconsequential if your impression just isn't the best. So when we're seeing patients we don't have a lot of time for multiple impressions. Or like, one open jaw, one closed jaw, who wants to buy bite blocks? Or, I remember even taking them back from the patient when I finished the impression. Who wants that step in the process? So let's talk about some things that we can do to help you make the best impression. There are just a lot of challenges when we make impressions. One challenge is that we're making an ear impression and it's such a static reflection of our patient's ear canal. Everyone's ear canal moves in its own unique way and therefore we're just not able to fully capture the scale of the movement that can occur with our every day activities like me talking right now or chewing or laughing. And second, ear canals are so dynamic that every time we move our jaw or pinna, the ear canal changes shape. So jaw movements can really result in

canal cartilage compressions with expansion and that can lead to changes in the ear canal volume. These changes really vary significantly among different ears. So each canal texture is also different and might be different than what it really seems on the outside. So this is something that can also dramatically impact ear canal dynamics. But until now, there really was not a way to account for this. So when you're taking an impression and you fill the canal up with the material, sometimes it just goes up the canal wall. And so it can expand, but only up to a certain point and then it stops. And it just doesn't show the places in the ear canal that could be more flexible or could be more stiff. So how do we overcome this? What do we do? We have our Titanium FitGuide and it's going to help capture that flexibility of the ear canal. It's going to help give our Phonak modelers that are creating and sculpting virtually your device more information to build a better device. And it can be used as such a great predictor of the fit and the feel of what the finished product could be.

So it's such a helpful tool in the clinic. The TFG, let's look at our picture right here. It has actually, has two sides to it. So one side is an M receiver. One side is a P receiver. And the M side is going to give you just the best example of the smallest device that we can make. So with the M Power, moderate power receiver, so it's everything included: the titanium shell, the microphone integrated battery module, the electronic receiver, all the guts of the hearing aid. That's really what you're looking at when you're looking at our TFG. And the TFG is made of solid medical grade titanium so you can easily clean this just like you would with other devices or things that your patients touch in office, especially during this time. And the TFG is just a great tool for patient counseling. We've all had that patient who wants the smallest possible device, but sometimes just looking at the impression, you're just not sure what the outcome is going to be. When you use the TFG, you can show your patient the way the device will look and also sit and fit in the ear. And so if they're just not happy with how it feels or how it's fitting in their ear, you can use this opportunity to discuss other hearing aid styles at that time. And then the device or the mold doesn't come into us and there's not a halt in development or the process because your patient isn't a candidate for it.

So it's a great tool to really decide if this is what we wanna go forward with. In a study completed at PARC, which is our Phonak Audiology Research Center in Warrenville, Illinois, we found that by using the Titanium FitGuide 50% of patients were able to have a deeper fitting device by an average of 2.5 millimeters. So again, every little bit of millimeter, every bit of space, every bit that we can make that device smaller and fit better, we'll have a happier patient. So how do you use the TFG? You know what it is. You have the M side, you have the P side, but how do you really use it? There's hash marks on it. So let's talk about it. A couple tips and tricks. So first you wanna use the TFG before you make the ear impression. And I like to say that first because there's just so many things going on and you might forget a couple steps. And so when you do this first, you'll definitely not forget to do it at all. And then make sure to do otoscopy before you're putting this into your patient's ear, 'cause you're putting it in and then the patient's gonna take it from you. And then you just wanna select what side you wanna start with. Do you want the M side? Do you want the P side? And then once you've decided, then you're gonna insert that Titanium FitGuide gently into your patient's ear.

And then I like to have them take it from you and they can insert it deeper into their own ear on their own. So you're giving them that ownership. They have control over it. Some patients hate stuff in their ears, right? So you're letting them take control and you're not forcing anything into their ear. And then when that TFG is real comfortable in their ear, it's sitting in their ear, you can ask them if they feel comfortable. Do they feel like they could tolerate this the whole day? It really, like I said, helps to give you that determination if they're going to be a good Titanium wearer or even a good CIC wearer if you decide to go with a larger device. So let's say they say, "Yes," they like it. You're gonna take your thumb and then on the hash marks you're gonna just line your thumb up to the intertragal notch lines and then remove it from the patient's ear and you're gonna record the hash mark. So from that side, so let's say it's an M side, you're gonna count how many hash marks you are away. And then you're gonna put that on the order form. I'll show you where that is later. And then my last tip I would say is I

really recommend you clean it right away and then store it in the case clean, so you can use it for your next patient and you don't have to do like a head scratch. "Did I clean this, where was this? "I don't remember." Or have to clean it in a hurry. You can properly clean it and then store it clean in your office. You can just clean it however you normally clean, again, anything your patient touches. So let's look at this, which is an average example from our modeling. You can see the image on the left. So our device over here is really sitting so much closer to the outer part of the ear, the opening of the canal. And just by using the Titanium FitGuide look at where it is sitting now. So the device on the right here, it can be built almost 3.5 millimeters deeper in the ear canal because of just giving us that information of the Titanium FitGuide. And then in this example, this is an acrylic technology here on the left side. So it's a little bit larger. It's considered an ITC, not a CIC, not an IIC, and it's really considered a can't build for titanium. But when we use the Titanium FitGuide, I mean, this is dramatic. I don't know if you're seeing this, but I'm seeing such a dramatic difference. Using the Titanium FitGuide, now this patient can wear a device that is titanium, and that's gonna sit four millimeters deeper into the ear.

So I mean, I can't express how amazing this is, four millimeters visually to see how small we can make it. It's just a great tool. There are new order forms. So for all of our Virto Marvel customs we have a new order form, but you can also save time and save paper by ordering on PhonakPro and using the E-store. We'll talk about that too. So this is where you're going to write your hash mark number that you got on the TFG on the order form. And you can also do it online. And then what I really like is that there's additional instructions on the other side. So I'll be honest with you. The first time I used it, I forgot to measure the hash marks. And let's be honest, we're busy, we'll forget to. So what you're able to do is measure after the fact. So you combine this receiver size up to the end of your Easyview Otoblock hopefully, and then you can match the hash marks up with the intertragal notch. So you know, it's okay if you forget, no big deal. That's why like to do it before I make the impression to hopefully I won't forget. It kinda triggers me, but you never know. And then it's easy to measure after the fact, or

compare after the fact just to make sure what you got your finger is what you got when you took it out of the ear. So it's just a nice crosscheck. You know how we always love cross checks in audiology. So let's talk about some good and some bad impressions, and we'll hopefully give you some tips to make a better impression moving forward. So good impressions are beyond the second bend. They show the pathway towards the eardrum and they include all our anatomical structures. Bad impressions are often missing information, have no shape to them, can have that Reddi-wip effect looks like you're putting something on top of your ice cream, and also show no canal. And these are some impressions that we've actually received in-house to make custom technologies. I know none of you have done that. We really wanna give your patients the best outcome in the build, and so you wanna be able to provide as much information to us as possible so we can do that for you.

So a couple tips. You wanna make sure to leave the otoblock attached. Whether you're using Easyview Otoblock or cotton or foam, just make sure you don't take it off. You wanna make sure the impression has no bubbles in it, no wrinkles, no marks, unless that's true to what the ear has in the ear. You want a full shell impression to the second bend. It's really gonna provide the best information. Even if you're building an IIC, keep in mind we keep these impressions on file forever. You know, everything's digital now. So you'll never know if maybe you fit someone with a Titanium and then two months later, they say, "You know, I really would like the connectivity." So they want something streaming. We can easily take the impression that we already have on file. It won't require your patient to come back in for an additional visit for another ear mold for another impression. It won't have them be on your schedule again for an unnecessary appointment. We can build it, send it to you, and then you can return the other for credit. So it's just a nice way to just keep that information on file. We'll keep it for you, we're happy to keep it for you. So this is a great example of modeling with a great impression. So this device could be built so much smaller. Let's do, again, with the great impression, look how small this device on the right side can be. The device will be built closer to the eardrum with a better impression. It's just every time we can

make something better for you. The other way to improve the technology is to build and use our Easyview Otoblock. So I am such a super fan of these. I hope you've all been able to use them. If you haven't, we'll talk about some ways you can get these. The patented, completely unique, and very proud again to be a Red Dot Award-winning Easyview Otoblock. So this helps to ensure really the best ear impression right away from the start. This is a whole new procedure in like thinking about making ear impressions. It's going to replace ear foam or cotton otoblock. But the same way that you usually make an impression, you're just gonna to use this in place of the cotton or the foam. Our Easyview Otoblock comes in three sizes: small, medium, and large and is really best used on ears that are nonsurgical ears. There's this transparent lens that's right at the end here and that will help you to visualize the tympanic membrane during placement. That's amazing to be able to insert this in an ear and see through. This is revolutionary in making ear impressions because we've never been able to see the other side, and now we can.

And then we have this little plastic vent. It's not a pull string or anything. It's going to ensure comfort while the impression material hardens. Patients report that they don't feel plugged up. They don't feel occluded. I've had some patients feel claustrophobic during impression taking and this will alleviate any issues like that. Easyview Otoblock can be inserted deeper and you can insert with more confidence. And it's going to give us the pathway in the direction of the canal towards the eardrum, giving us more anatomical length, more information to be able to build you a better technology for your patient. The Easyview Otoblock is going to stay on the impression at Phonak when we scan it in, so make sure don't remove it, don't take it off. It's really gonna provide that additional length information that we need to know how to make the best device for you. There is no additional equipment that you need to be able to use this. You can use this for any kind of impression. So if you're gonna make impressions for ear plugs or musician's plugs, or even slim fits or silicone or anything that you're gonna make just use your same equipment that you normally do and your same impression material that you normally do. Oops, let me get rid of that. You can order Easyview

Otoblocks online at PhonakPro. You can order them in small and medium and large or you can order a starter pack, and all sizes are included in that. There's a great video that I'm going to go over with you now, and Rachel will show us how to make a really great best ear impression.

- They say, "First impressions matter." I say, "Good ear impressions are what really matters." The success of a custom product fitting relies on the quality of the ear impression. The poor impression can result in insufficient acoustic seal, and the custom product not sitting deep enough in the ear canal. This can lead to a less discrete device, less gain, less comfort, and more feedback. That is a recipe for an unhappy client. That's why we at Phonak have created this easy tutorial to help you achieve perfect impressions every time. First, I examine Jerome's outer ear and ear canal. He's a great candidate for an ear impression, because he has a clear, healthy ear, free of wax and ear abnormalities. Then I select the correct size of otoblock. You don't want it too big or it will create pressure in the ear canal. And you don't want it too small or impression material could push past it. Slightly pull the ear up and out to straighten the ear canal. Then, brace while you insert the otoblock. It must be placed past the second bend in order to achieve a deep enough impression. The otoblock should be approximately halfway down the ear canal which can be easily checked with an otoscope. While bracing, place the tip of the syringe into the ear canal as close to the otoblock as possible. Fill the ear canal and continue filling the helix, bowl, and tragus area. Be sure to always use small circular motions while supplying constant pressure. Always have the end of the nozzle in the material to avoid creating air pockets or creases. It takes a few minutes for the impression material to harden.

To check this, gently push your fingernail into the impression. If no mark is left, the impression is fully set. To remove the impression, twist it in the direction of the client's nose. Afterwards, evaluate the health of the ear using the otoscope. Then evaluate your impression for accuracy. The perfect... impression should go past the second bend. It should be free of air pockets and creases, and the impression material should come in

direct contact with the full face of the otoblock. If you do not feel 100% satisfied with your impression, then you can't expect your client to be 100% satisfied with their custom hearing aid. Therefore, don't hesitate to try again. Your client will appreciate this much more than having to come back for another impression or a remake. You can clearly see the effect that a good impression has on the fit of a custom hearing aid. A good impression makes all the difference.

- [Alyssa] So that information came from YouTube, and we have our own YouTube channel. So there's such great resources on there for you, tips and tricks. You can watch this video again. And then I wanna just talk a little bit about selecting the right size for your EasyView Otoblock. So in this video, we looked at just making the impression with foam and that's fine. We don't want you to not be able to make impressions. But some tips I would suggest if you're gonna use the EasyView Otoblock, you wanna select the correct size for your ear. And just like you would with foam or your cotton, excuse me, and then you're gonna use your otolight, and then your speculum back and forth. Where I like to use the EasyView Otoblock and I'll push that into the ear with my otolight and then I'll look in the ear with my speculum and kinda go back and forth 'til I have a nice visualization of the eardrum right behind that window that you can see through of the EasyView Otoblock. And then once I'm happy with the placement of it, I know it's deep enough in there, then the real trick is with your impression material. Any type of impression material that you have you wanna insert it into that little cup of the EasyView Otoblock and fill that up first. And then just like Rachel did, coming out of the ear with your impression material. That's something that was a learning curve for me. When I started using this, I forgot to fill up that little cup. And there's a little bit, six millimeters more information that we're gonna be getting, so you have to fill that up too. So just keep that in mind when you're doing it. It took me about five impressions with EasyView Otoblock to get really comfortable with it, but once I did, I will not make ear impressions without EasyView Otoblocks. So just some tips for you. Our acoustically optimized vent is our proprietary venting option from Phonak. So let's dive into that and talk to you about how important that is. By

optimized, we mean optimized for size and for performance. So that's our goal every time. We're gonna make you the smallest device possible unless you tell us on the order form differently. We're optimized because 65% of what we see come in, the AOV-O is selected and is the venting of choice. And it's really best for your patients who are used to wearing custom devices and also for patients who just tell you, "I need to have the smallest device," and visibility is key, and of course, sound quality is important to them. So if your patient wants the smallest possible device, but you have a concern that maybe there's going to be an occlusion issue, we've looked at the audiogram. There's really good low frequencies. Maybe your patient reacted poorly or said they didn't like feeling occluded in the past, if you do wanna build that largest vent possible, this will be the AOV-O, so our acoustically optimized vent O for most open. And AOV-O is really best for patients who are new to custom devices. Like I said, patients who struggle to acclimatize to the presence of occlusion, this device is going to be modeled first with venting as the priority and then size as our second priority. So just for these patients remember to select that AOV-O and that's the option that you're going to want for them.

So if you wanna utilize our AOV option, please make sure you fill in the audiogram section on the order form. If it's not filled in, it's going to cause a delay in production if you select AOV, but don't fill in the audiogram. You're gonna get a call from us. We have to get this information from you in order to build your order. So we really don't wanna hold up that. We wanna get it to you right away, so make sure to fill this in, and you can also fill it in online. The AOV-O optimizes your patient's device and it also improves your fitting outcomes. So in our validation study, the AOV showed that patients had an improved acceptance of their custom devices compared to just randomly selected venting options. So all of these things together really in your toolbox will create the best possible solution for your patient. Our Titanium is the smallest device that we've ever made at Phonak, and we have these tools in place to help you and to help your patients receive the smallest device possible. So that's going to include using the Titanium FitGuide, to use our EasyView Otoblock, to use the

acoustically optimized venting. The Titanium FitGuide and using it for every single order will really give our shell lab this valuable measurement of the canal flexibility. We're gonna be able to give your patient a 50% percent smaller device, more discrete device. It's a quick procedure, so please don't forget to do this. Using EasyView Otoblock is going to give us on average of six more millimeters more information from your ear impression versus a traditional cotton or foam otoblock. So that's also a really good tool to use. And then we introduced that acoustically optimized vent or AOV in 2007. So it's been around a really long time. It is our most popular vent option. It does take into account the size and the shape of your patient's hearing aid, as well as their audiometric configuration. It's going to determine what vent size, will minimize the feedback and their occlusion, and it will maximize their hearing performance. We have internal information that shows that the AOV-O vent, when you select this, it saves time for you, but also we've seen that there's less returns and less remakes when you select the AOV-O versus any other option. All of these things together are going to create that best device for your patient. But I want to stress that we don't want the lack of these tools to hold you back from ordering the Virto products. You can still use a cotton or you can use a foam otoblock. You can still make impressions the way you've always made them.

But we can send you the items that you need. So talk to customer service. Speak to your representative, let us know. We're happy to send you EasyView Otoblocks, to send you Titanium FitGuides. We want to give you the tools that you need to best fit your patient. So we're 100% supportive of you, and whatever you need, let us know. We do have a new order form. And like I said, it's available online and it's available in paper form. A real easy way to order is to select the S on your order form. It's going to ensure the smallest device possible that is built for you. And that's really our goal every time. We build the smallest device possible unless like I said, you specify that you want a different device size based on your patient's preference. So we can build maybe a full shell with a ten battery, or if you want something bigger, we can build that for you. So just let us know what you need, what you want and we can make that happen.

Again, on the order form, there are these sections here where as small as possible you'll get these little S's. So if you're in a rush, you can just select all the way down, S, and we'll make the smallest device possible. There is only one wax system available for the Titanium, so just keep that in mind. There is another option here for if you're going to build the... Virto M-312. But for Titanium, your only option for wax protection is Cerustops. And then on the back there's a nice cheat sheet. I forget this as well. So what kind of shell style can I build? And then what are my standard options? So if you do select S, what does that even mean? So S will give you no Push Button. S will give you no T-coil. S will give you a MiniControl. So on the faceplate there will be no button. And again, the default and only wax system will be the Cerustop. And then by default we build a transparent removal line. So it's a nice cheat sheet. You're busy, you don't have to remember this by heart. It's on the other side of your two-sided order form. If you don't have PhonakPro, I encourage you to go online and I'll show you if we have some time to go over PhonakPro. It's so great to order your technologies online. You can look in standard mode or you can look in an advanced mode, and you can order your technology.

So if you just looked in standard mode, you'd be able to fill in your Titanium FitGuide here. You would be able to see that there is only one option for wax protection. It defaults to acoustically optimized venting. And then you'll get your Easyphone with PushButton if you choose. You can choose here your removal line is transparent and then Push Button if you choose, as well as shell options. There's an option for better retention that we'll talk about. So if you select Advanced Mode, then you have access to a lot more capabilities, and you see a lot more on screen. So this is up to you if you wanna select to pick your device this way. I prefer it. You'll put in your Titanium FitGuide measurement here. And again, you're measuring from the end to the hash marks you received with your fingernail or when you wind up your ear impression after the fact. So select that here. The Acoustically Optimized Venting is your first option. But again, there's a lot of options for venting, so feel free to choose. The AOV-O is a little bit down on the list, so that's our most open venting. You can pick that there.

You're able to also choose if you want to have anything on the faceplate. So if you want no button, and you want our MiniControl, that's an option. If you do want the push button, you have to select that that is not an additional fee, but it is an additional feature that you have to tell us you want to be built that way. Removal line always will be default transparent. You can also build it without one, so that's your choice here. And then use our control, default is No Push Button, but you can order the Push Button. I will say, just as a caveat, if you have a patient and they want to use the MiniControl when they first order and so that you'll get a flat battery door, if you wanna change down the line to a Push Button while you're in warranty, it's not just a simple change of the battery. It's actually components inside. So you will have to send that into us, but we can switch that for you and that will be done as a courtesy. You don't have to pay for any of that, but just let your patient know that's not just like a quick in-office switch. You have to send it into us for us to change for you. And then shell options.

So we'll talk a little bit more about this. You can do the shiny or you can do the matte to give you better retention, and that's where you'll select that here online. So I've talked a lot about the benefits of the TFG today, but let's look at the results from the study that we did at PARC, which is our Phonak Audiology Research Center where we looked at IIC candidates to determine effectiveness of that TFG. So here we're looking at the 50% who benefited from the TFG. And the graph represents how many millimeters of depth improvement was found for how many participants. You can see that about 1/3 of those that received a benefit have only a small amount of ear canal flexibility. And then the other 2/3 of the participants received a two, a three, a four or more millimeters improvement in depth. So in this study, the Virto M-titanium for model based on the impression alone, and then with the impression plus the added information of the TFG. And we found that PARC, PARC found that over half of the participants received deeper modeling with the TFG measurement. It's on this slide. So comfort-wise and we found that actually one of the devices could be modeled deeper. And then the average improvement was about 2.5 millimeters. So it's a big change.

And then on this slide, comfort-wise... this information is a study of 15 subjects. 10 were male, five were female. And then their average age was 70 with a range of 52 to 82 years old. Six of the participants were new hearing aid users, and nine were experienced users. So comparing the power receiver devices, they rated the wearing comfort as acceptable and compatible to our previous Belong Titaniums. And then rating insertion as acceptable and compatible or comparable to the Belong Titaniums. And then rating of insertion was acceptable compared to the Belong Titaniums.

And then finally, we expected this that there was no change in speech understanding ability when we compared the Virto M to the Virto B-Titanium. So there's no change in understanding moving forward. So that's a little bit of our validation just to make sure that we didn't change anything too, too much with our previous line and our previous generation of technology. We have additional features that are available in the Titanium that I wanna go over with you. We have ability to change our module color faceplate options. We have that new venting option, matte. We have a new cleaning tool, and biometric calibration that I wanna go over. So faceplate options. In the past you only had the one, which was the black faceplate, but you can choose from cocoa brown with or without a button, and then the pink with or without a button. So again, you have options to do the MiniControl that we'll talk about. So it'll look like the cocoa brown and the pink faceplate. Or the program button, so it'll look like the black faceplate. Ordering options, so on that order form the button, you won't get our MiniControl, because you have the button capabilities. But if you order a standard, you'll get this flat faceplate and you're able to use the MiniControl to be able to make your volume changes or your program changes. We do have new vent cleaning tools. They're for your use. They're not to be sold. They're not to be given to patients. These are great, really strong tools that will help clean out tiny vents for patients that you build with like pressure vents, just used for routine hearing aid checks for you in the office. Retention options, so on the order form, you're able to select the extra retention for the Titanium surface, and that gives you that matte option. And then online it'll tell you just the extra retention option. So on the left side, you have our extra retention, so this more matte.

By default, your standard build is this really, shiny, soft, not soft, I don't wanna say that word, but it's very soft looking option. So better retention is matte. Standard is your shiny option for your shell color. And that's where you're gonna select it on your order form. Biometric calibration. So in the past, the customization only happened on the outside. But with our previous generation of Belong and with Marvel, we're customizing on the outside and on the inside. And we're still the only custom hearing aid manufacturer that offers this biometric calibration, and it begins with extracting 1,600 data points from our patient's ear impression. And then the directional response of the hearing aid is designed to take into account the effect of the patient's ear anatomy and how it affects those incoming sound waves. And for our directional models with Virto we're able to custom calibrate a more precise beam former. We can give up to two dB better directionality.

So biometric calibration was originally formulated based on a database of impressions. We don't use KEMAR when we're doing our calibration. We're using this custom database of impressions. And we're able to take these ear templates and model the reflections of the size, the shape, the volume of each convolution of the ear impression. And we're able to create this to have it run in the back of our rapid shell modeling software, our RSM, which is the proprietary modeling that we do. And then this custom shape model combined with our complex proprietary algorithm will give your patient and their custom technology the most precise beam former to really maximize their signal-to-noise ratio. And this is mainly seen in our directional custom products. Programming. So we have the Virto M-Titanium battery pills. If you don't have these or you need longer ones, please let us know. We can send those to you. And then you're gonna use either your NoahLink or your Hi-Pro box, and other hardwired connections to target for programming. We do have some updates. So if you've used Titanium in the past, we have some updates. Because of concerns with our grommets falling out of previous Titanium products, we now have a improvement in place that has been in place since February 24th. So our only wax prevention option moving forward will be the Cerustop. So that goes for anything Titanium: the Virto M-Titanium, the Virto B-

Titanium. If you have a SlimTip Titanium, a cShell Titanium, that will be our only wax protection option. And then any device that comes in for repair is going to automatically be remade to include this new Cerustop at no charge to you. Turnaround time, you're looking at about 10 business days on these Titanium repairs. And just so you know, there is an improvement for our program button that will be available starting now. So again, anything that comes in, if your device is out of warranty, if it comes in for a general repair, then we're going to repair it. We're going to remake it at no fee, no charge. We wanna give you all these improvements. If you have a patient who has been reporting issues with the grommet falling out, if the device is out of warranty, do not worry. Send it in, we'll repair it as a courtesy. So more flexibility. If you're fitting our Audeo Marvel RIC products, I hope you've been able to use some of our custom acoustic coupling options. We have some great choices that you can change in office like the SlimTip Titanium.

So this is a snap-on. It's a great, durable option for patients with teeny tiny ears. Maybe you wanna use this on a teeny ear that needs a super power receiver or a power receiver, you're able to snap this on the power receiver. In addition, for patients who need something kind of all-in-one or they need an ultra power receiver, our cShell Titanium is such a fantastic option as well. Target 6.2.6, if you haven't downloaded it, download it to be able to fit the Virto M's and the Naida M's. Don't worry, there are no changes to global tuning, to fine tuning. No real changes when you connect with your NoahLink or however you're gonna connect, but no real changes here, so don't get worried about it. I did want to point out one thing. When you go to the Device Option tab to start up, by default, if you have a patient that has a button, they're going to have a six-second delay and that goes for any type of custom product with a button. The default will be the six-second delay. You can click on it and have it be not zero. You can click on it, you can have it be 12 seconds. You can change that here. But this is going to change the start up. It won't immediately start up. You can get a little bit longer here so the patient doesn't like push on it or change anything when they're actively inserting or removing it from their ear. A couple things too that I had to re-

remind myself of is the volume. So if you set volume because the ears are not talking to each other, you can do volume up or volume down as your options, and you'll go up in five steps or down in five steps, but you get a whole range of 10, and that's your option there. Or if they have the button, you can do a program option which is nice. If they have a T-coil, then you're able to have access with that button. You'll have make them a custom T-coil program and they'll be able to access it with that button. Digital impressions. So a lot of questions have been asked about digital impressions. There's many scanners that are out there being used today. And so if you do have a scan, we're able to accept scans. I find the easiest way, again, is on PhonakPro. When you go here, then you're able to quickly select Upload File and choose the file you wanna upload. So I love using this feature. It just makes everything easy. It cuts down on the turnaround time. Nothing has to get sent in, we already have that scan from you on file.

So whatever your patient wants, whatever their hearing loss is, there is a Marvel for everyone. We spent this last hour on the Virto M-Titanium. It's a great offering, but we do have the Virto M-10 non-wireless, the Virto M-312 non-wireless and the Virto M-312 complete connectivity available. And we know we're in some changing times right now, just uncertain times, but we can connect to you through remote support to help guide you using the Virto M-312, all of our Audeo products, our Boleros. If you do wanna have your patients have that ability to connect to them, let us know. On that note, I wish you a safe and healthy week.