



## SoundBites Podcast Transcript

### Episode: Sara Burdak on Healthy Aging Month, Evolv AI updates and Fall Detection

Dave Fabry: Welcome to Starkey Sound Bites. I'm your host, Dave Fabry, Starkey's chief innovation officer. Coinciding with my birthday, September is healthy aging month and it also marks Fall Prevention Awareness Week during the first week of fall. Get it? Both are very important topics that we talk about here at Starkey every single day. So we're going to spend some time discussing them with a fantastic guest, Dr. Sarah Burdak, who is Starkey's chief audiology officer and executive vice president of product strategy. Sarah, thanks for joining us, and for a second time. I want to tell you that the bar has been set very high because you are our inaugural guest on Starkey Sound Bites. And to this day it stands as the highest listened to podcast of all of the guests that we've had on. So what are you going to talk about today?

Dr. Sarah Burda...: All right. That's pretty awesome. That is certainly a high bar. So thanks for having me again, Dave. I remember how fun it was the first time and we just had such a great experience. And today we're going to be focusing on the topic of healthy aging.

Dave Fabry: Seems like an appropriate one for us in the hearing space, but we know that healthy aging has really, I think coming out of the pandemic, we have felt, I don't know, a single person whose life wasn't touched in some way by the pandemic in terms of job loss or health issues or family members who unfortunately may have succumbed to COVID 19, sadly. But, I think it really helped put an emphasis on better hearing and connecting that to better overall aging. And so I know that you're a student of the World Health Organization's statistics on some of the way that we currently see aging and what we see the projections in the future. So do you mind sharing a little bit of that with us?

Dr. Sarah Burda...: Yeah, absolutely. And thank you for setting that up. I think everybody realizes that people are living longer than ever before, and that's a given. We see that in our personal lives with our own families, of course. But you're right, the World Health Organization says these numbers, especially those that are 80 years and older, that is the largest growing population and is expected to triple by 2050. Yeah, it's incredible. It'll be at 426 million people. And I do feel like you and I with our background can really relate to that, and ...

Dave Fabry: Well, not only the background in your case, but for me, I will be one of those people in this projection. So with any luck, knock on wood. It's a staggering number to consider, over 400 million people fall into that category that really comprises our target group for the use of, first-time hearing aid users.

Dr. Sarah Burda...: Yeah, it does. We know that people wait a long time. The statistics typically, you know, you hear all sorts of things, but around seven to ten years with a hearing



loss before they actually get fit with a hearing aid. And so, that really is the demographic and the age that we are typically dealing with when you're working with adults, because that age is about 70 years old. And certainly one of the things that we are passionate about with healthy aging is that should be expected. We want everybody to have the best quality of life possible at any age. And we absolutely know that hearing is a critical factor to living better.

I actually, in preparation for this was looking up some definitions because I've heard "aging in place." You have to, and there's some controversy around that because some people say, well, I don't want to age in place. So in reality, that means that someone's really able to age at home or where they want to be. But I loved this definition on healthy aging because it's "a continuous process of optimizing opportunities to maintain and improve physical and mental health independence," which I think is always so important, "safety and quality of life through the entire life cycle." And I think, yep, exactly. I mean, that's really what I ...

Dave Fabry:

Kind of our unwritten mission. When you think about what we've been doing since 2018 and delivering our industry's first devices that had sensors embedded in them to track not only physical activity, but social engagement, as you say, really, that tie to mental health with fall detection, part of the safety piece. And then, really looking at, you know, you are in control of our product strategy. And so you know, we can share maybe a little bit of what's going on.

We don't want to give away the farm but that certainly is central to the way that we see as a hearing aid manufacturer. Here, and as you've spoken and as Achin has spoken our chief technology officer, many times, we're seeing hearing aids transition from single purpose devices that importantly provide better hearing to connect into that overall health and wellness piece to include features like fall detection that will keep people safe and provide peace of mind for family members while they're loved ones age. I love that distinction that you made of aging, not aging in place, because I want to keep moving, but aging in whatever place it is that I call home is what's important to me. And that sometimes is that conflict with children, adult children of aging parents who are concerned for their safety and welfare.

Dr. Sarah Burda...:

No, absolutely. You and I have had conversations about what it means to be a baby boomer. I'm Gen X and the sandwich generation, and so we see that too often. And when you really look back over the years in the profession we're in, there really was very, very limited research around this. In fact, I remember when it wasn't even a topic and now I think we're just starting to see some of that true evidence that hearing loss is related to other health conditions. There's a body of research, that's more specifically focused on the relationship between hearing loss, social isolation, loneliness, cognitive issues, and some allude to cognitive decline and then even dementia. And I look at the space and how important it is that we have these links for everything that you said.



Our hearing aid technology that we have we're the only ones that really think differently about hearing health and overall health. Because as people age, it is known that they are more likely to have multiple conditions. And then we're seeing associations in the research to diabetes, to cardiovascular disease and hearing loss and really anything that can impact blood supply, the vascular system can also result in what we call sensorineural hearing loss. I know a lot of times a patient or a consumer will say I've got a nerve loss or nerve damage, but all of these connections are allowing us to understand a little more deeply, how to think holistically about overall hearing health and everything that goes into that.

I love that you were talking about fall detection and alerts and some of these other areas, because I just think if you are going to have multiple issues as you age and get older, which we likely will, then I sure want to be able to hear the physician telling me what medications I need to take, when I need to take them, what I should be doing to be aging in a healthy way, so that I'm very much as informed as I possibly can be. And I have to hear to be able to do that.

Dave Fabry:

For sure. I mean, fundamentally, as you say, interfacing directly in the healthcare environment requires that you be able to hear better to engage with your physician, to explain the symptoms you are having, if there are comorbid conditions and then also to be able to understand their instructions and questions. And, you know, you pointed to cardiovascular, and those were really the first time I remember seeing the NHANES database that, roughly every five years or so updates in a national database that is representative of the overall society. So they take into consideration diversity and inclusion, and then they add tests as they become available and do a large scale population survey, and it was really about a little over 20 years ago, in the 1990s, when hearing testing became a part of that battery that was monitored in the NHANES database. And one of the very earliest studies was the one linking diabetes and hearing loss. That an elevated risk of diabetes is accompanied with hearing loss.

And I don't know whether it's a good thing or a bad thing, but during the time that I was at Mayo Clinic, a lot of my best friends were cardiologists, which I said, I don't know, good thing, bad thing? But many of them will say in the aging population, and I've said this before on Sound Bites, that many cardiologists say that in the aging population, the ear and hearing is often a good barometer of cardiovascular health, even in individuals who haven't previously had problems for what you said, anything that constricts blood flow, high blood pressure, diabetes really can't supply the inner ear, the cochlea with that blood supply so necessary to its function. And so that was the first, but I think now you mentioned falls and we'll come back to that a little bit when we talk about some of the product updates that we have and we'll be expecting in the future.

But, cognitive decline, I've said for a long time that while my parents worried about cancer and heart disease, Baby Boomers, like myself, are more concerned



with cognitive decline because we've been educated in the educational system longer than our parents. And we've invested in that, our noggins to a degree, and we don't want to lose it. And that part of healthy aging and why September is such an important time to have this conversation.

Talk a little bit about the work that really I would say was kicked off by Dr. Frank Lin at John's Hopkins, but then has continued around the world. Talk about where we've been, where we are, and give us a glimpse into some of that research that you mentioned is going to be coming soon that will help, I think, create a sense of urgency around shortening that delay from seven to 10 years down to one or two years after you've been diagnosed with a hearing loss.

Dr. Sarah Burda...: Yeah, absolutely. And I have a personal connection. My mother had dementia. And so, of course, any family going through that understands.

Dave Fabry: Mine too.

Dr. Sarah Burda...: How truly trying that that can be and will do anything they can to prevent it. So I will talk about some of the statistics that are associated with it, but I do want to point out as we're walking through this today, is the good news, is we can talk about all of these things, but I don't want people to forget, and I might say this a couple of times Dave, is that hearing aids are proven to help. So I will say that, and then we'll talk a little bit, I hope, about what our hearing technology can do.

But, the reality is when you have a hearing loss, it increases your difficulty in being able to communicate effectively. I often think of this as this domino effect, and we see it happen in our profession because you see somebody who then maybe struggles more and then they don't want to go to an environment where they can't hear. So in some instances they sort of give up.

And it makes it harder for them to remain active and engaged, and that gets into the term, "use it or lose it." And so having a hearing loss creates a scenario like that. And that means with limiting communication, your brain, isn't engaging like it may have been previously, and then it's not getting the same levels of stimulation. And so that is some of the thought process then into why then there might be this connection to cognitive decline and dementia.

And, you mentioned John Hopkins specifically, and that study is showing that hearing loss may account for up to 8% of dementia cases, and that would make it responsible for 800,000 new dementia cases that are diagnosed on an annual basis.

Dave Fabry: Yup, staggering.

Dr. Sarah Burda...: I mean, that's incredible. So silver lining, I've said I'm going to mention it a couple times, the good news, is there was an update to the Lancet study in

2020, that I think is so important because it does say hearing loss is one of 12 things and it's very, very important to get treated because if you get it treated, it's one of 12 things that you can do to help prevent dementia.

Dave Fabry: Yeah, 12 modifiable risk factors.

Dr. Sarah Burda...: Yeah. I mean, wouldn't you do anything that you could, I mean, again, knowing with my mom's history and all of that, wouldn't you do anything that you could to truly reduce the incidents of dementia, or certainly delay its onset? I know I would, and I would want that for anybody in my life.

Dave Fabry: And even if we're talking correlation versus causation, that Lancet article is so important, as you said, it's an update of the 2017 macro study that they did, meta study, meta analysis. And in 2020, they updated it with the 12 risk factors, modifiable, and of those 12 risk factors, hearing loss in midlife was seen as the highest single factor that could lead to preventable and modifiable risk for prevention of dementia. So right there, is an important point that if professionals listening on here, haven't raised that issue with their patients, they should. And, for potential consumers or patients who suspect that they have a hearing loss, that's one of the things that kind of gets my attention, of all 12 modifiable risk factors in midlife, hearing loss was identified as the single one that led to the biggest modifiable risk. If they simply get a hearing test and wear hearing aids, if they have a hearing loss.

Dr. Sarah Burda...: Yeah, number one. I mean, that's what I think is the exciting piece is it's treatable. Take action.

Dave Fabry: And I think, end users will say, and I've had patients tell me this because I've been a long time early adopter, if you will, of speech-in-noise testing. And when I encountered a patient and I put them through a speech and noise test they said, that's the first time anyone's actually tested me in the environment where I notice I'm having difficulty. Because, usually I tell them I'm having troubles at cocktail parties or at gatherings, and then they put me in a box that's really quiet, and then they hit me with a barrage of beeps and that tells me nothing. Or if they do speech testing at all, it's done in quiet. And I think, I don't know whether you'd plan to discuss the study that was published in 2021 from the Journal of Alzheimer's Research that showed individuals with speech in noise deficits, even a moderate degree of speech in noise deficit, are 61% more likely to develop cognitive decline if they don't treat their deficit with hearing aids.

And those with a severe, considered a severe deficit, 91% more likely. And, many professionals have been resistant to using speech-in-noise tests in the clinic, and I think increasingly we're seeing that speech-in-noise testing goes way beyond the pure tone battery to identify those differences. You know, you and I have talked many times about two patients with the same hearing test can have very different difficulties. Speech-in-noise helps with that. And now, the



evidence basis seems to suggest that people with more significant amounts of speech-in-noise deficits are at an elevated risk for cognitive decline and cognitive impairment.

Dr. Sarah Burda...: I will speak to the fact that I'm completely in agreement that you have to do some type of speech-in-noise testing, and it doesn't always have to be so sophisticated. You're spot on. Most of the time patients will even recognize what the test battery is, and it's a way to have the professional experience and differentiation for what that professional is able to provide. I have, I'm trying to think if I can say never, but I think I can say never, Dave, I don't think I've ever had a patient tell me that they're just at home and quiet and need to hear better. It is always associated with background noise being in the environment. 100%.

Dave Fabry: Yeah, and I know a lot of professionals feel like especially coming out of COVID, that there are disruptions everywhere, whether it's their fear of their biggest competitor, who's undercutting them on price or over-the-counter devices and all sorts of realities that are disrupting the way of doing their practice, their best practice. And yet, many have been resistant to using speech-in-noise, formal or informal testing when in fact it is a huge differentiator, to be able to show to a patient where, and the family member where they're having difficulty and show as well, when they're properly fitted by a professional with hearing aids, that they will do better in that same noisy environment that everyone experiences. I agree with you.

Rarely, if ever someone says, I need to hear better in quiet.

Dr. Sarah Burda...: No, it's always a noise or background noise. And those are the situations where now technology helps so much. I remember years and years ago, I would have some patients say, gosh, I got a noise and I just took my hearing aid out. I mean, how amazing now with the technology that we have, with artificial intelligence, our deep neural network systems. We're able to really understand the patterns and the acoustic recognition in the space that the individual's in wearing our product. I think it's really remarkable how hearing aids are able to react and perform in noisy environments. It's so fun to me to see over the years in this profession where this technology has come. It's like nothing else we've ever had.

Dave Fabry: Yeah. I couldn't agree more. Talk a little bit at the end of August, we had the latest, the next level, if you will, of Evolv AI launch took place and you were central to that. Both in terms of the development, and then of course the product launch. So talk a little bit about that evolution, if you will. You just mentioned it now let's talk specifically about the way that this product has set the next level of performance, not only in noise, but also for some other important sound quality, speech intelligibility features, and also convenience features, and maybe even we can throw in a health and wellness feature or two.



Dr. Sarah Burda...: Yeah. Can you tell I'm excited? If anyone watches the video, I'm like just grinning ear to ear because I feel like, gosh, I could talk about these things like you in the hearing aid space, some of these things just make us really excited. So you're right. We had just such an amazing release when we launched Evolv AI. And I heard testimonial after testimonial about how much better people were hearing with it. So that was just a really, really fun to see. And we still, we get daily comments about this is life changing. And so we did take that technology platform to the next level. And of course, our job one, is always, always going to be hear better, but you're right, we think again about overall health and wellness and how all of this syncs up together.

But with the release that we just had on August 29th is we looked again at how can we focus even more on clearer sound? What are we doing in the space of less background noise? What about connectivity? We always need to make sure that that's seamless. And then everything that we do is really trying to think, how do we make this an effortless experience for the professional? But more importantly, the patient? When I talk about the patient engagement, our goal is so that the patient has to interact the least amount of time with their technology. Or, they interact with it in a way they want to interact with it. And I think that's an important distinction. We're not telling anybody you have to do these things.

So what's really fun, from an overall performance and noise, as well as clarity, we've made some significant improvements in this last release. We have been talking about an additional 40% reduction in noise energy with Evolv AI, and we were just able to add that same level of reduction, I know to two additional environments, tricky environments. So one of those being wind, so when a patient's in wind noise, and then also with machine noise present.

And then, our other industry leading artificial intelligent features called Edge Mode. And Edge Mode uses AI to really prioritize for a very specific environment that a listeners in for clarity or comfort. So designed to really be very accurate and situational. I sometimes think of it as the Help Me button. But, the nice thing with Edge Mode with this release is it's been updated for transportation noise. So for those of us who fit a lot of hearing aids, it's always tricky. Patients come in and say in the car or with road noise, that sort of low frequency hum can be very disruptive when they're trying to listen specifically to someone else in the car. And then from a connectivity perspective, we have an additional...

Dave Fabry: Stop for just a second. I think on the noise. I mean, transportation, couldn't agree more car, train, for those who live in environments where they take public transport, very important that we do the best we can to reduce those noise levels by an additional 40%. And then I think when we're talking in the topic of this podcast is healthy aging.



My dad would scoff at me as 60 plus year old riding a bicycle because he just thought that would be reckless at his age. But as a Baby Boomer, I'm guilty of trying to think that I'm 10 to 15 years younger than I really am until I look in the mirror and I want to ride bikes, but I want to be able to communicate when I'm wearing the devices on a bicycle and wind noise is an issue and a challenge. We can't promise that we're going to eliminate that wind noise, but to take that other additional step and provide transportation and wind improvements is something that does directly contribute to healthy aging in the activities that we want to be engaging with.

Dr. Sarah Burda...: Yeah. Thank you for slowing me down a little bit, as I said, you get like, oh my gosh, this is so fantastic. And it's fun to talk about. Those are the toughest environments. So when you can tackle things like restaurants and all of that, but now getting much more granular and on a golf course and all of these things, I think again, we're looking at ways to ensure that the hearing aid is always performing its best, wherever the patient's at and that's really the intent.

Dave Fabry: Absolutely. And then I interrupted you, you were going onto connectivity. So talk about connectivity because connectivity means different things to different people. It can be connected to their technology, connected to the phone. It can be connected to the professional. It can be connected to their family members and really the umbrella is really being connected to those important life moments. So what do you mean when you say connectivity improvements with this latest version of the AI?

Dr. Sarah Burda...: Yeah. So you set me up very, very well because I won't necessarily get into all of the ways that we're offering connectivity. I'll talk a little bit more about just the enhancements specific to this release. But one of the things that we think about is, again, how does a patient want to engage with the technology? Is it on board the hearing aid? Is it through an app? And so we're looking at the continuation with this release of being able to provide a true hands free experience when you're able to accept or reject a phone call directly off of the hearing aid itself. So that's really, really nice. We also ...

Dave Fabry: Is that for iPhone users? Android users?

Dr. Sarah Burda...: Yeah, and I was just going to say, Dave, thank you for that. Another big, big piece here is connectivity to your device. And, we're excited because we always want to make sure that that again is an easy experience. We don't want it to be daunting or intimidating. So we've continued to improve what we're doing there in simplifying what we're doing for Android pairing and making all of these processes much more automatic.

Again, when we're talking about healthy aging and the average age of the first time hearing aid user being about 70 years old, we want to make it easy. We want them to come in and be able to use the technology the way they want to



use it. And that's why we talk about it being effortless, because that is the whole intention. But you mentioned connectivity in multiple ways and an area that we're excelling in as well, and I know you're very, very passionate about it is our TeleHear, tele audiology system so that we can connect to a patient wherever they are. And then our Thrive Cares app.

Dave Fabry:

Absolutely to be, and with Thrive Cares just for those who are not familiar with that, it enables me as the hearing aid user to designate, really for practical purposes, an unlimited number of people who may download a companion app to the Thrive Control app that we call Thrive Cares, and that enables with my permission as the hearing aid user, I can tell Sarah that I want to show her how many steps I'm taking and the physical activity on a given day, the social engagement, even falls. If she's not one of my trusted contacts to receive text alerts in the event that, the hopefully rare event, an unfortunate event of a fall, even with the Thrive Care app, she could see when I had a fall or when at least a fall alert was tripped. Over time, and it enables that peace of mind for family members, the connectivity in Thrive Care. And I think it's one of it, number one, it's a differentiating feature only available to Starkey. That they can designate these individuals who wish to serve as recipient to download that app.

And I think it's perfect, for you refer to yourself as the sandwich generation. So now the hearing aid parent, hearing impaired parent can designate their child to receive these and be able to in real time, see whether I'm getting up in the morning, whether I'm getting out and about whether I'm wearing my devices and whether or not I'm physically active. And I think that's a tremendous feature to have discussions with family members of hearing aid users. And sometimes I'm not sure that that they're even aware that this feature is available. So I would during Healthy Aging Month ensure that all of the professionals listening to this have a conversation with the family members of their patients about this feature.

Dr. Sarah Burda...:

You're spot on you, you have heard me give presentations on this before, and I feel so strongly. We talk about bring somebody with you to the appointment because oftentimes they might be the individual who cares more about your hearing than you do. And it was me with, in my mom's situation or it might be again, one of their grandchildren, their daughter, their son, their spouse, who is hearing these things and that's resonating with them that they're the ones who want to purchase this hearing device for their peace of mind.

I love that you said that because that's the important connection there with having the fall alerts and detection with having the Thrive Care option it's so that you are staying connected and you're able to really know what's going on in your loved one's life.

Dave Fabry:

For sure. And you know, you also mentioned the telehealth, TeleHear feature, we call it. This is a synchronous real time feature where you and I might be in



different locations as we are today, but we're able to communicate using both visual and audio as we are, but then also I can, or whoever the professional is in this scenario can program the devices and reprogram them with essentially the same functionality as if we were in a face to face environment.

I like to say that telehealth has been hiding in plain sight for 30 years until we needed it the last few years, but we have really set up and maybe you can talk not necessarily on this latest advance, because we've made a couple improvements, but I think some people may not be aware of everything that you can do. We've made improvements in the institu testing, but talk just a little bit about the way that professionals can remain engaged with their patient when they're unable to be with each other or I would argue even moving forward, again as your future patient, I may not always want to take time off from work to come and see you or if I can't drive and I need assistance because I have low vision, I don't have to make those arrangements. So what is it that the TeleHear program allows for, that gets you excited?

Dr. Sarah Burda...:

Everything. No, I think Dave that we have a real opportunity here because we have had some of the telehealth functionality for quite some time and I've always said, push the limits. We tend to specifically talk about it from a remote programming perspective, but there's opportunities for tele consulting, for tele counseling. With the video capability really it's just about endless with, in ways that you can support one of your patients today.

So when we've been progressing, we've wanted to make sure that within the remote programming capability, you really could do everything that you needed, and I think that's important. Some people think it's a scaled back version or you're not going to really be able to fine tune and make the adjustments that you need to. That is not the case. Really, you can accomplish everything that you would accomplish short of, swapping out maybe a receiver cable and those types of things, but from a programming and adjustability perspective, you can accomplish everything that you could in the office.

Dave Fabry:

And I do want to stop you there when you mention the receiver cable, because we also have a differentiating feature and I can never talk about telehealth without mentioning Self Check. Because while you can't replace a receiver cable in a telehealth environment, you can show them how to plug it and plug it back in. But think about the very real scenario where a patient may wake up one morning, put their hearing aids in and notice that they're not hearing as well in their left ear as they're accustomed to.

They're in a panic, they'll call your office and say, I'm not hearing in my left ear. I don't know as the clinician, whether it's because the hearing aid is broken, whether their hearing has changed, whether it's something as simple as a wax guard getting blocked and being able to effectively empower the patient to use the Self Check feature in seconds can tell them whether there's a problem with



the microphone, the receiver, the circuit, even the sensors with a diagnostic tool, not unlike the dashboard on a car and then either you can walk them through in an environment like this, how to change the wax guard if you're unfamiliar with it.

Dr. Sarah Burda...: Clean and check.

Dave Fabry: Clean and check, or get them into your office for a hearing test. If everything tests out, they replace the wax guard. I've done this many times with my patients, they say, and it shows that the receivers blocked, they put a new wax guard on, run it again, shows that it's working and then they're good to go. But if it still shows that it's not functioning, then I have to address it from a repair standpoint. Or if it shows that it's now good and they still say, I'm not hearing well, then I got a triage and get them in the office for a new hearing test.

So people need to broaden their horizons about thinking of the way that telehealth can make their practice more efficient and can make it more convenient for patients and end users and family members who are providing transport for these folks. And we have a feature, Self Check that I think every clinician should teach their patients how to use this feature because it will save them time and less hassle for the patient. And gives me the peace of mind as somebody that is sometimes maybe a little anal retentive, the ability to check and make [inaudible].

Dr. Sarah Burda...: I hope, I want to pick off of something that you said, because I hope people continue to provide the service. We did see over the past couple of years, an uptick in creativity in the way that we were able to serve our patients. And I think about that because our mission is to serve our customers better than anyone else. And I always say so they can serve their patients better than anyone else. Telehealth is a significant part of that service. And I think it creates such value that I hope more and more professionals just continue to embrace it and think differently about how they can deliver and provide hearing healthcare.

Dave Fabry: For sure. I couldn't agree more as you know, this has been a topic near and dear to my heart. And I think there's technologies that should fit in, yes, not every patient can handle it, but I think the pandemic taught us that some of those septuagenarians and octogenarians were perfectly capable of doing FaceTime calls with their grandchildren. They were perfectly able to watch app-based television and understand how to stream from their phone and they can easily do telehealth the way that we've incorporated it on smartphones. Everything they need is in the palm of their hand for doing telehealth now.

Dr. Sarah Burda...: Yeah, absolutely. Absolutely.

Dave Fabry: Well, the time as last time is flying by.



Dr. Sarah Burda...: I know.

Dave Fabry: I don't want to leave this topic before we reserve a little time in the idea of this, September being Fall Prevention week, the first day of fall. Talk a little bit about whether you think as somebody that interfaces with a lot of practitioners on an annual basis, do you think practitioners really understand and prioritize the importance of falls with their patients? And then talk a little bit about what we've been doing with fall detection.

Dr. Sarah Burda...: Sure. Yeah. Thank you. I think Starkey's been relentless about looking at this closely and making sure people are aware. And part of that was helping professionals talk about it and making sure they were aware and understanding the statistics behind it, because it is a little bit startling. And even for me, as I said, not that long ago, I felt like there was no data really around this.

But, with the CDC, I mean, they talk about this as even with a mild degree of hearing loss, the risk of falls increases by 140%. By every additional 10 DB of hearing loss. Yikes right? I mean, that that's a lot. And so hearing loss, I get asked often, well, how does it contribute? Well, if you think about it, we spoke about your brain isn't as engaged or it has to be focusing on another task. And so what that might mean is if you're focused elsewhere, you're not as familiar with your environment and your surrounding areas. And then we also know that there are some spatial cues that if you're not hearing well, can throw off your balance. So it is all really connected together and it can be devastating. We all know of someone where it has been devastating if they've fallen.

Dave Fabry: And it's not just old people either.

Dr. Sarah Burda...: It isn't.

Dave Fabry: That's one thing that I think I find, and I have many discussions with clinicians who say this patient isn't old enough to be worried about it.

Dr. Sarah Burda...: Oh gosh, yeah.

Dave Fabry: We've seen firsthand and heard from many of our practitioners as well as stories about their patients who didn't think they were at risk for a fall, suffered a fall and then were able to take advantage of the fall alerts that's sent to the three contacts. And we're hearing, we're not saying it, but we're hearing on this has impacted their lives in meaningful ways.

Dr. Sarah Burda...: Yes. I mean, you, like me have so many people reach out to you and I have several, several examples since we released this of it saving somebody's life. And the reason I started with the statistics is I love that you said everybody thinks, not everybody, but a lot of people think, oh, my patient is too young. With a hearing loss...Regardless of age...



Dave Fabry: At higher risk, regardless of age.

Dr. Sarah Burda...: It puts them at higher risk regardless of age. And...

Dave Fabry: So for me, that's something we've had in the market now for several years. I mean, we know that others are thinking about falls, but we're the only hearing aid manufacturer capable of doing fall detection. It's great that, I mean, other people are learning how to walk now, I would argue, we've been learning over the past almost four years, how to walk, then run, maybe even fall. And our next goal though, for many people, and my mom fell, broke her hip and began the unfortunate downwards spiral that accompanies falls in the aging population and fall detection's great, but it's not the end game.

And as you know, we're working in partnership with Stanford and working on a multi-year research project. That's not available now, but we're really trying to identify not only falls and ensure that we can detect those as accurately as possible and we've got the evidence basis if you want to look at [www.starkey.com](http://www.starkey.com) for our evidence base behind this feature, but we're really wanting to prevent falls before they occur.

And that's really the prize in this and so stay tuned. We're not done. We're just getting started with this health and wellness and healthy aging aspect. And, fall prevention is really what we are 100% committed to as a feature that in the years ahead, people will be able to wear hearing aids and perhaps even work to try to strengthen their joints by walking more, getting up and moving around, doing tasks that will effectively prevent a fall before it occurs.

Dr. Sarah Burda...: Yeah, I think that's incredible if we can, we've talked about balance training exercises. The research that we're doing as you were talking about is focusing on what changes in your gait, if you're about to fall? Are there some things that we can do that then would trigger a mechanism where the person would know and be able to stop it before they actually fell? So I'm so excited, you're right. When we think about that prevention really is what we're targeting, but we do have with the built-in sensors today, a life changing technology by being able to detect the falls currently.

Dave Fabry: Well, thank you for detailing where we are and where we're going. Teasing a little bit. I'm not going to push you any harder cause I know you know where all the secrets are, but I'll just make it a little harder for our production team today and ask them to blur this out. But what we're really working towards is making hearing aids cool. We've said that for a number of years, but we really are seeing, and I would say I'm testimony as a baby boomer, that I'm less stigmatized by the use of a hearing aid and having one on my ear. We're going to have to blur this out, because this is the next generation, but I have greater requirements for what a hearing aid will do for my lifestyle and making sure that



I'm living my best life at every age. And so I think we're a long ways toward that already, but I can't wait to see what's coming next with you.

Dr. Sarah Burda...: Well, thank you so much. It's fun as always our time goes so fast, as always as well. And we have great things now, and we have great things that we're going to be delivering next. And again, it's kind of hush hush on the next, but coming around this corner and we'll continue to share what we're doing because wholeheartedly we're committed to the best experiences and what it means to hear better and live better.

Dave Fabry: Absolutely well said. And I think we'll end it there for this extended play version of Starkey Sound Bites podcast. And if you enjoyed this, please rate and review it on your favorite podcast platform. Don't forget to subscribe to it, to ensure that you don't miss a single episode. And thank you again, Dr. Burdak for this very enjoyable and engaging conversation.

Dr. Sarah Burda...: Yes. Thank you for having me always a good time. Thanks.