SoundBites Podcast Transcript
Episode: The Longest Day – Help Fight Alzheimer's

Dr. Dave Fabry:
Welcome to Starkey Sound Bites. I'm your host, David Fabry. Starkey's Chief Innovation Officer. June 21st is the summer solstice, the longest day of the year. And for the Alzheimer's Association, it's the day with the most light, is the day that they fight. To mark this important day of awareness and fundraising for the Alzheimer's Association, and to dive into some of the new research on the connection between hearing loss and dementia, we're very happy to welcome today Dr. Heather Snyder to our podcast. Dr. Snyder is the Vice President of Medical and Scientific Affairs at the Alzheimer's Association, and an expert on the topic of the connection between hearing loss and dementia. Dr. Snyder, thank you so much for joining us on Starkey Sound Bites today.

Dr. Heather Snyder:
Oh, it's an absolute pleasure. Thanks so much for having me.

Dr. Dave Fabry:
Well, I've been really looking forward to this episode of the podcast because, as an aging baby boomer, my parents were really far more concerned with cardiovascular disease and cancer. But as a boomer... My dad had an eighth grade education. I went to school and really never stopped going to school as far as my family back in Wisconsin was concerned. And as I get older, I'm more and more concerned with preserving cognitive function. I've seen it in my parents and my mother unfortunately died from complications from dementia and seen it in myself even a little bit early. And in many cases, cognitive decline is simply disassociated as a... Like hearing loss as something that just comes along with aging. And, I really think that the work that you are doing with the Alzheimer's Association is so important to saying, we really want to raise awareness for Alzheimer's and dementia and also do what we can to preserve as much cognitive function over our lifespan as possible.
And that's really the overarching theme today. I think what I'd like to begin with is clarification. I think a lot of people... We had the opportunity last month, Starkey was a sponsor of the Alzheimer's Association Purple Gala for Minnesota and North Dakota. And we were a proud supporter and I got to attend the event and was so impressed with the work that's been done, and they raised over a million dollars at the event.

Dr. Heather Snyder:
I heard.

Dr. Dave Fabry:
And one of the issues, one of the discussion points at the gala, was that there are about 6.7 million people over the age of 65 currently in the United States dealing with the consequences of Alzheimer's. We know that in many cases people are confused or often misinterpret dementia and Alzheimer's. So the issue I think, is it a fair statement to say that all people with Alzheimer's show some signs of dementia, but not all dementia is Alzheimer's disease?

Dr. Heather Snyder:
So dementia's really that umbrella term that's describing the loss of thinking, memory reasoning that an individual experiences, and there are many causes of that. And that impacts your daily life and your

ability to live and be independent. There are many causes of dementia including Alzheimer's, but also frontal temporal disease, Lewy body disease, vascular disease are some other examples. But when we think about these diseases, they're really on a continuum. And you don't wake up one day have dementia, have really that more significant memory loss. That means that your daily activities and your ability to be independent are as affected.

And that change happens over time. And there's another earlier stage that we often we'll talk about called mild cognitive impairment. You can have mild cognitive impairment due to Alzheimer's, mild cognitive impairment due to another underlying disease. And all of that is that continuum that we would call Alzheimer's disease. And in the science space, and we're continuing to understand more and more about this in the research space, there's an even earlier part of that continuum where we know the biology is changing. And the question is, does that mean you're on that continuum and you'll continue if you live long enough to develop mild cognitive impairment and dementia? Not unlike how we think about heart disease, right? You can have high cholesterol, high blood pressure, you're on that continuum that we think about.

Dr. Dave Fabry:
Thank you for that. I think that is very helpful and will lead to really the basis of what we want to talk about today in terms of some of the research that has been published recently. I mean, one of the things with hearing loss we know, and many people don't really outside of my discipline, understand or appreciate hearing as a vital sense that connects us to each other. And also, many people think of hearing loss as... One of my least favorite things to hear from patients that I see are that a primary care physician said, "Ah, don't worry about your hearing, it's normal for your age and just deal with it." And it has led to, in many cases, in part there's a stigma associated with hearing loss. And also this lack of the need for any sense of urgency has led to a 7 to 10 year delay in many cases in the aging population in particular, from the moment that someone says, "You should get your hearing checked," to when they actually decide to take that step with hearing aids.
And that delay we're seeing in many cases... And like I said, it is not nothing disparaging against primary care physicians. I would never want to be in their shoes and have to deal with the array of diseases and conditions, particularly in their aging population when you consider things like colon cancer, breast cancer, prostate cancer, that if ignored can lead to death. And in many cases this has been a misunderstanding, misinterpretation of the comorbidity with hearing loss or the need for a sense of urgency when someone has a hearing loss.

Dr. Heather Snyder:
Well, I think some of it also comes into how we measure these things, right? And we need the technology that allows us to do these in easier and faster and accurate ways so we can say, "Here's going on and here's how we can intervene." And that's the same too when we think about cognition. And so linking, there's just some similarities into those discussions.

Dr. Dave Fabry:
And it really was, in many cases, thinking of this isolation, was really in the early 2000s when the NHANES database, the national database for people testing over roughly a four or five year period began to look at comorbidity between hearing loss, and the first one was cardiovascular disease and many of the, as you mentioned, diabetes and risk of stroke, et cetera. And it's really only been within the last decade beginning with a study that had been published by Dr. Frank Lynn at Johns Hopkins that

began to show a correlation between untreated hearing loss and cognitive decline leading up to then work that the Lancet had done in 2017 and 2020. And then also importantly, a study that was published earlier this year that looked at modifiable risk factors and looked at the comorbidities, if you will, between hearing loss and cognitive decline. Could you talk a little bit and unpack for us some of the results of that most recent study and then maybe we can segue from there into some of these other topics?

Dr. Heather Snyder:
Yeah, so the studies that we've seen today have been relatively small or shorter follow up, or it's been self-report or it's been not as clear. There's an association, but exactly what that association means has not been quite clear. This most recent study that was published just in Lancet that looked at really a large number of individuals, but it was something over 400,000 individuals that they followed over time suggests really the strength of this association that really adds to that emerging evidence of this connection, of this potential connection. Now that's still not cause and effect that we still don't know that.

Dr. Dave Fabry:
... We still have to be very careful about a correlation-

Dr. Heather Snyder:
... Mechanism s, yep. But it's an association and it strengthens the presence of that association. So even though hearing loss increases the risk, at least this association of risk of dementia, they did also find that when individuals reported that they used hearing assisted devices such as hearing aids, there was less risk. They saw less individuals that had dementia over that period of time. So that was interesting and that that actually, those that used hearing assisted devices, the risk was very similar to those that did not report hearing loss. So that really suggests the idea that this is an intervention strategy that we can think about that when you're having hearing loss, that that could be in some people linked to increased risk. And if you intervene, you might be able to mitigate at least in part some of that risk. Now we have to do those studies, but it definitely moves us closer to that kind of setup in thinking about how to do those studies and what we need to be looking for.

Dr. Dave Fabry:
Yeah, I think that as an audiologist, that's very exciting from the standpoint of thinking. We know that hearing aids are not going to reverse or really stem dementia when it occurs. It's not going to treat or cure dementia. But if we can slow down those effects or move from an association to saying perhaps in the future that the sooner you intervene, the better your overall outcome will be in the long run, is very exciting because I look for ways to address stigma, which we've seen in my discipline, the introduction of over-the-counter hearing aids in the past years as a means of improving accessibility and affordability. But still looking to shorten that delay from the time of acknowledgement of a hearing loss to doing something about it will certainly be helped if we can move with stronger studies and longitudinal studies that move from saying there's an association to perhaps being able to quantify that association stronger.

Dr. Heather Snyder:
Well, and I think also making sure that those studies are representative of all communities. And that's not necessarily, even though this was a large study, it's known not to be a fully representative of the

geographically, racially or ethnically of the larger population. And that's always really important for us to make sure that we take anything that comes out of these studies into consideration. But one thing I want to hit on that you mentioned is we think about are there things you can do to mitigate your risk? So we know for coming back to that comparison to heart disease or a heart attack, we know that if you, for instance, manage your cholesterol, you lower your risk of a heart attack or stroke. You don't necessarily completely eliminate it, but we've significantly changed that outcome for millions of people. And it's that same kind of idea. If the research turns out that you can mitigate some aspect of this risk, it's on that continuum, that's a pretty big deal. And as we start, I know we're going to talk about this, but some of the other risk factors as you start thinking about are there different strategies you can put together, what does that look like too?

Dr. Dave Fabry:
Yeah, and a couple points that I want to build on from what you said is first of all, representation in terms of the soci... We know if my numbers are correct, I said 6.7 million people over the age of 65, I think roughly 75 perc... Or what is it? 73% are 75 and older, that females are impacted roughly two-thirds.

Dr. Heather Snyder:
Two-thirds.

Dr. Dave Fabry:
One-third male. And then also ethnicity-wise, Blacks are roughly twice as likely as non-Hispanic Whites, and Hispanics are about one and a half times more likely. So we have to make sure, as you said, that their representation is of the overall society. And that's why I was curious with regards to the NHANES database, which each time those are done as a mile marker, and I know they're just a snapshot at that moment in time, but they do provide us with a longitudinal way to track sort of the changing impact of society to ensure that each time it's relatively recalibrated to reflect society. And in the NHANES database, are there screening measures like the MOCA or other cognitive screening measures that are done that could then look to develop and strengthen some of the comorbidity information?

Dr. Heather Snyder:
I don't know the exact measures that are within that study. There have been some that have been brought in as that has continued and they have published some work looking at associations with some different components that they measure with cognition, but I'm not sure of the exact assessments that are part of it. So there's that, and that's one. There's also the healthy research, the healthy retirement study that's going on at HRS, which is another kind of community based study, and they collect a lot of information. And there are some others that look at clean data more generally. So you look at those that are seeking medical care, so you already have a little bit of a potential bias, but those that are over the age of 65, you can look at claims data and look at individuals ,for instance, that have maybe the presence or have reported of hearing loss or the use of hearing assisted devices.
And then you can look at, well, what are some of the other considerations that they have? So there are some of those types of studies that are ongoing right now, but all of that kind of adds to that evidence. And really what we need is we need to say, "You have a population of individuals. We're going to intervene with this strategy that we think are at greater risk. We're going to intervene with this strategy of hearing assisted devices. Follow on over time. Do we see a change in risk? Do we see a change in

progression for those individuals?" And that's really the kinds of studies that are either happening now and we look forward to seeing them report out.

Dr. Dave Fabry:
And going back to the Lancet study that you were referring from earlier this year, that was in 2017, there was a study then they updated it in 2020 and then continue to do so to look at modifiable risk factors. And one of the things that audiologists gravitate to is that of at least in the 2020 study, of the 12 modifiable risk factors that they examined with regards to health conditions and dementia, hearing loss in the midlife in terms of modifiable risk factors as a single component to the best that they could isolate it was the single largest modifiable risk factor. I think when they said 40% of the 12 factors that they looked at were modifiable, I think hearing loss alone accounted for about 8%.

Dr. Heather Snyder:
So in 2017 and 2020, the Lancet actually commissioned a report to really assess and look at the data. So it's not so much... It wasn't a study-

Dr. Dave Fabry:
... Yeah, it was ..

Dr. Heather Snyder:
... But it was really looking at the strength of data and the strength of evidence and brought in what that would look like in different kinds of modeling. And so as you noted, then they look at and sort of assigned what that would look like and determined that... Actually roughly 40%. In 2020, the report was that roughly 40% of individuals living with dementia could be modified by addressing these factors. And hearing loss was included in the 2020 and really noted within the 2020 report. And I think speaks to the strength of evidence that we see growing, and you're going from, you talked about that one of the first studies that looked at the association to now you have a study that's looking at over hundreds of thousands of people, and the strength of those studies has continued to go. And so looking at the intervention studies is really the next thing that we need to be doing.

Dr. Dave Fabry:
And so the achieve study, you're familiar with that one, no doubt. So beginning to then look at this multinational longitudinal study where you divided populations who were either fitted or not fitted with amplification as a component of the overall achieve study, I think we're going to see some of the first results presented in Amsterdam at the end of June, is that correct?

Dr. Heather Snyder:
So at the Alzheimer's Association's International Conference, which for those listening is the largest meeting of dementia scientists in the world. It's in mid-July.

Dr. Dave Fabry:
Oh, in July.

Dr. Heather Snyder:
So we look forward to that. Yeah. So we look forward to seeing... Hopefully, we'll see, I haven't heard for sure, but that's certainly the hope.

Dr. Dave Fabry:
Yeah, and I mean for us, I think, again, depending upon the outcome of those studies and then other studies as you said that begin to isolate and study in individuals who are either fitted or not fitted with amplification, the hope that we can potentially move from talking about a correlation to potentially causative effect of non-treated, untreated hearing loss, and then even better eventually looking at the benefits of remediation in the form of hearing aids.

Dr. Heather Snyder:
Yeah, and even thinking about them, the multiple components of these. So sleep is another one that's pretty close in terms of the science and where we are in our understanding, it's very similar in that we see these really strong associations. If you intervene and address the sleep disturbances that a person is experiencing, do you see an impact on that in long-term risk? And those studies are happening right now. So particularly, sleep apnea, if you address sleep apnea, what's the impact for those individuals? Well, can you imagine that somebody's maybe having hearing loss and sleep apnea if you address both, what then happens? And as you build in or you bring in some other things like being physically active or certain types of cognitive engagement depending on as those sciences evolve as well, and you start to get to that place of being able to have a very specific recipe about what I can do based on what is happening to me, that personalized approach, or that precision approach. We talk a lot about precision medicine, about what I might be able to do to.

Dr. Dave Fabry:
Absolutely. And I think, again, many family members of those with hearing loss, most of the people listening to this podcast are hearing care professionals, audiologists, and hearing instrument specialists. But we do hear from patients that also tune in and listen from time to time when it's a topic like this that I think is of significant interest, particularly as I said, among the aging individuals as what they can do to intervene to help stay as sharp mentally throughout their life as possible. And I think one of the challenges is considering, what can I do right now? Certainly from our perspective, we see shortening that delay so that it's not going to do any harm. It's not going to do any harm. Talk to your physician-

Dr. Heather Snyder:
... No, talk to your doctor. If you're concerned about your hearing or you're noticing that... I mean, I'm actually on my... I'm going to spend the weekend at my twin niece's high school graduation. So if that's something that I start noticing in my parents or their other grandparents or my siblings, that's a conversation to have like, "Hey, I'm noticing this. You should be talking to your doctor," and encourage that conversation. Because you're right, we should be intervening. This should be part of the dialogue that we're having every day.

Dr. Dave Fabry:
Yeah, and I think many individuals, particularly my generation, we thought... We always like to think we're 10 to 15 years younger than we really are. I say until I look in the mirror and think, what happened? But one of those issues is I'm seeing among my colleagues and people of my age is we are wanting to intervene sooner than my parents might have been. They were sort of thinking people would think they were older, or they would think less of them if they wore hearing instruments. But I'm seeing now I'm less stigmatized, but I have higher expectations for what they can do.

And included in that, I want to avoid that downward spiral that often occurs with untreated hearing loss where you take vibrant individuals, you mentioned your family members, parents, grandparents, where they're engaged, they're wanting to participate in all of these activities, and as they begin to lose auditory function, they pull back because they find that they're not enjoying the cocktail party, the event where they're meeting, the family reunion, where they're meeting people and talking about a lot of different topics in rapid succession and not being able to follow along because they have a peripheral hearing loss and perhaps then co-mingling with some cognitive decline.
And there's no harm in starting earlier with hearing aids and intervening. And then even more so if we start to see the benefit of these studies long term, absolutely no reason.

Dr. Heather Snyder:
Yeah, absolutely.

Dr. Dave Fabry:
Talk to your primary care physician.

Dr. Heather Snyder:
Absolutely.
Dr. Dave Fabry:

If you're have a hearing loss, get a hearing test. And we've even made that easier with the creation of this new over-the-counter category where if people feel reluctant to go into a healthcare facility, they can do a screening measure online using apps, websites. See if that screening measure suggests that they have hearing loss, then go see an audiologist, see a hearing care professional, get a diagnostic test to determine what can be done, what is the degree of loss, and then what technologies exist that can improve the condition for them.

Dr. Heather Snyder:
Well, I think you hit on such an important thing. And throughout on your comment is this idea of the technology and technology is continuing to evolve and emerge. And so having that test earlier and earlier and getting in when it's in those early stages, there's new technology that's not necessarily what our grandparents might have thought about or talked about when they thought about hearing assisted devices. That technology is continuing to evolve and being part of that conversation with your healthcare provider, that will be part of that dialogue as well.
So it's so important. We see that also when we think about the diagnosis of Alzheimer's, right? Today it's a much more intensive cognitive assessment. You go through a series of tests that evaluate your different domains of your cognition, your memory, your executive function and others. But we're moving into a place of that you might have a blood test. We're not there yet, but we're moving there. And so technology is really getting us to that place, but the potential of diagnosing and identifying issues in that earliest stage give us that window into being able to say, "How can we intervene at that earliest stage as well?"

And again, I think in the next couple of years, even sooner, we're going to see some of these studies, these large studies that are looking at interventions, reporting out that's going to give us just more information and really a deeper dialogue of that kind of conversation that healthcare professionals can

be having with their patients and that the patient, the individual can say, "I have this concern and here's why I want you to do something about it."

Dr. Dave Fabry:
Yeah. You mentioned a number of the studies already we've discussed. Are there other ones that are on your radar that would be of interest to audiologists and hearing care professionals linking dementia, Alzheimer's, Alzheimer's disease, and potentially hearing loss that are on your radar?

Dr. Heather Snyder:
I mean, many of them have been looking again at this association really. There was, I think, one earlier this year where they looked at a little over 2000 individuals and saw a similar association of the linkage in terms of the use of hearing assisted devices having a lower prevalence of dementia in the individual, and that those that had more moderate to severe hearing loss had a greater risk of developing dementia than those that did not have that hearing loss. So thinking about even that there could be a... The severity of hearing loss may also tie into risk, and there's a lot of questions on that. I think this was... There haven't been that many studies that have really looked at the degree of hearing loss in that association, but again, adds to that strength of evidence that thinking about hearing assisted devices as an intervention may be a strategy forward.
And so knowing those studies are coming soon and reporting out soon I think is an exciting time to see what that looks like. But even if the outcome of those studies does not necessarily show that there's an impact, this idea... And I appreciated what you said, no harm, no foul, that this is a good thing to do as we age. This is a good thing to have that conversation. Staying socially active, staying physically active, staying cognitively engaged in the conversations you're having or whatever environment you find yourself in is a good thing. And it's really about quality of life. So how do you have that kind of quality of life and really minimizing the access barriers to do something about it when you have a hearing loss. And that all ties into our overall brain health and our overall quality of life as we age.

Dr. Dave Fabry:
Yeah. So well said. And I very recently became a grandfather for the first time, and so I wanted to-

Dr. Heather Snyder:
... Congratulations.

Dr. Dave Fabry:
... Do everything that I can to ensure that I hear and can understand everything that my new granddaughter says. And so it sometimes requires that level of emotional engagement or personalization to really bring home the point. But also, I really appreciate that you said you're going to be seeing family and observing interactions, and I think it's really dependent on family members. If there are people with hearing loss or interested parties, their loved ones who have hearing loss, what can people do? Number one, I can handle the hearing loss part. But what can people do, many professionals who might be working with aging populations? The average age of a hearing aid user, first time hearing aid user in the United States, is right around 62 years of age, which is actually down from where at it sat for over a decade at 69 years of age. We're seeing that boomer effect, but still many practitioners listening here are probably working with aging populations. Are there specific early warning signs of dementia that you could suggest that they are in a professional sense, staying in tune to as they're working with patients?

Dr. Heather Snyder:
Yeah, I mean, particularly if you're having a conversation and you're talking about a weekend or you're talking about something and they make a comment to you about, I just can't do that any more like I used to or it just doesn't happen. Or I was driving here and just couldn't remember where I was going or how to get there, even though I've gone there a lot, or where are my keys? Wait, what is this? And they're holding the key. It's not, not that you forget your keys or you lose your keys. I lose my keys all the time. It's that you forget what the key is. It's that you don't actually know what its function is anymore. The word retrieval could be a challenge, and the earliest signs could be different for different people. I am still one of those people. I balance. I use a paper check register.
Even though everything's online, I do all my bill paying online. I still want to have it equal out in my little paper register. And I have done that forever, since I was 16. My husband has never done it. So for me, if I started to have a challenge with that, that might be an indicator to me that I was having some challenges in things that I had been able to do for a long time.
My husband couldn't do it five years ago or 10 years ago. He's not going to be able to do it in five or 10 years from now either. And so it's really thinking about yourself and what are changes for you. And when you start to notice those things, trust your instincts, have that conversation. And that's true. We're not talking about cognition, but you could say the same thing about hearing. If you're noticing changes in your hearing, have that conversation with your healthcare provider. And if they don't take you seriously in the way that you want to have your conversation with another healthcare provider. You have that ability to do that. And speak out, getting an answer that that helps you at least identify what that path forward might be.

Dr. Dave Fabry:
I think that's so important. And again, for the professionals listening, I mean, we saw over the counter as a threat in many cases. And I think too often we look at the threats without looking at the opportunities. And the opportunity really is to flex your strength as a practitioner, not only technically with understanding the technology, but understanding your patient and understanding what they're going through. And I think that's so insightful to talk about really not on a standardized measure, but rather the behaviors that you know in particular. Many professionals will work with a patient for 10, 20 years and they even have some opportunity to see that patient over time in terms of their daily behaviors, interacting with family members, engaging with them to see on something that they do routinely, how that changes over time, can be an early warning indicator. So it's not necessarily going automatically to a screening measure or to some sort of assessment, like you said, balancing a checkbook, but rather looking at how the behavior on the things that they routinely have done for a long time are changing. I think that's so important.

Dr. Heather Snyder:
And we have a tool called the 10 Signs at alv.org, 10 signs. And that just gives you sort of those top signs that people tend to notice. Become familiar with them, and then think about, these are things I notice. And if you do have a patient that's there with you, say, "Have you talked to your family about that?" Maybe you should talk to your primary care physician and have that conversation. It should just be part of our dialogue.

Dr. Dave Fabry:
Well, thank you so much for joining us, Dr. Snyder, for this call today on Starkey Sound Bites. I think the information that you provided will be of keen interest to hearing care professionals to any potential patients or family members who have loved ones who may have hearing loss and who may have concerns about cognitive decline. And you've really provided us with a wealth of information today.

Dr. Heather Snyder:
Well, thank you so much for having me and really appreciate all that you do with the Alzheimer's Association and in partnership and look forward to continuing that work together.

Dr. Dave Fabry:
That's our privilege and a pleasure really to participate with such an outstanding organization. And to our listeners, thank you for listening to this episode of Starkey Sound Bites. If you enjoyed this conversation, please rate and review on your favorite podcast platform and feel free to share it with your friends, your colleagues, your networks. And if you have suggestions as to future content that we might incorporate on Starkey Sound Bites, send an email to soundbites@starkey.com and we will be happy to bring on other experts like Dr. Snyder. Dr. Snyder, once again, thank you so much for being here today.

Dr. Heather Snyder:
Oh, thanks so much for having me. Have a great night.

Dr. Dave Fabry:
Thank you.