

Have you Heard “A Listening Project”
Episode #9
Hosts: Betsy Randle and Jamie Machotka
Guest Host: Cathy Kooser

Betsy R. (0:02) Hello and welcome to “Have you Heard a Listening Project.” On this podcast we are going share tips, stories and practical advice to help people with hearing loss stay connected. If you or a loved one have a hearing loss or you work with those who have hearing loss this podcast is for you and we’re excited to have you join us. I’m Betsy, I’m one of your hosts and today I’m also joined by Jamie. Both Jamie and I work for OEI as hearing health advocates. Hi Jamie!

Jamie (0:35) Hi Bets! So great to be hosting this podcast with you today.

Betsy (0:40) I know. Today we’re going to talk about a condition called Tinnitus which is a perception of noise or ringing in the ears, it’s a pretty common problem. According to the Mayo Clinic it actually affects about 15 to 20% of the population. We’ve asked a very knowledgeable guest to join us today to help us in understanding more about Tinnitus. Welcome to Cathy Kooser from Hillcrest Hearing and Balance Center which is a division of Southwest Ohio ENT Specialists.

Kathy (1:15) Hi everyone!

Jamie (1:17) Hi Kathy! I know that you work with our teammate Tori in Ohio and we’re so appreciative that you could be here with us today to help answer some questions. Before we dive right in, I want to remind everybody to stay until the end of the episode where we’ll share some really great hearing health resources with you including ways to treat and cope with Tinnitus if you or someone you know has it. So Kathy, welcome, welcome please for the people who don’t know you please tell us a little bit about yourself.

Kathy (1:49) I’d be happy to. I am a license independent social worker on staff at Hillcrest Hearing and Balance Center in Dayton, OH. I have two cochlear implants. Having had progressive hearing loss most of my life and I now have non-stop Tinnitus. I provide rehabilitation and counseling for people with hearing

loss, Tinnitus and those who are considering a cochlear implant. And I'm excited to announce that I am currently developing a class on Tinnitus that will be available soon.

Betsy (2:27) First of all Kathy, tell me if I've been pronouncing this correctly, the emphasis is on the first syllable, Tinnitus?

Kathy (2:37) Actually Betsy, it can be pronounced either way both are considered correct. As a matter of fact you will notice I often switch back and forth between the two pronunciations. Ha Ha! (Betsy...that's funny)

Jamie (2:53) Yeah, I've also heard that British people tend to emphasize the first syllable but many Americans, including me, say Tinnitus with the emphasis on the middle syllable. Anyway, now that we know we can say it either way Kathy, would you be able to give us a brief explanation of Tinnitus?

Kathy (3:12) Well, as Betsy mentioned Tinnitus is the perception of sound when there's no external noise present. It is commonly referred to as ringing in the ears. And if you don't mind Jamie, I like to give you a few statistics regarding Tinnitus.

Jamie (3:32) Yes, let's hear them!

Kathy (3:34) 50 million Americans have Tinnitus and there are basically three levels of severity; mild, moderate and severe. The mild category affects 28 million and it's defined as an individual perhaps distracted and annoyed by the Tinnitus but still functioning normally. The moderate level affects about 20 million, this is defined as experiencing chronic burdensome Tinnitus. Manifesting in impaired sleep and concentration some depression and anxiety and perhaps exhibiting some avoidance and withdrawn coping strategies. And then there's severe; 2 million individuals which is about 2 to 3% of the population with Tinnitus experience extreme and debilitating cases in which the individual is completely hijacked by the Tinnitus. Sleep and concentration are seriously impaired. They may be clinically depressed, some even to the point of taking their own lives and struggling with anxiety. Significant avoidance and withdraw coping strategies are used continuously. Tinnitus is on their mind 24/7 and at this level Jamie, their brain is not able to habituate.

Jamie (5:11) how horribly difficult that must be.

Betsy (5:14) Wow, I had no idea that it was so prevalent and that it could be so debilitating. I also suffer from it at times so I guess I'm not alone.

Kathy (5:24) No, you most definitely are not. And Betsy, it's important to note that 90% of people with Tinnitus also have hearing loss whether they're aware of it or not. 60% of those with hearing loss who wear hearing aids experience some relief from their Tinnitus because of the masking that occurs. Meaning the hearing aids raise the level of environmental noise so that it covers or masks the sound of the Tinnitus. Consequently, it is no longer heard or perceived as bothersome. Even though, I have non-stop Tinnitus when I'm wearing my cochlear implants, which is of course all day, I'm rarely aware of it.

Betsy (6:14) So, what causes it?

Kathy (6:16) Well, there are several causes; hearing loss to start, noise induced hearing loss and presbycusis.

Jamie (6:24) And, can you explain the difference between those for people who may not know?

Kathy (6:29) Sure. Noise induced hearing loss results from exactly what the name implies exposure to loud noise. 33% of all hearing loss cases are a result of noise exposure. Presbycusis is hearing loss related to aging.

Jamie (6:49) Ahh, right...just like people over 40 or so start needing reading glasses.

Betsy (6:54) I know them both too well!

Jamie (6:58) Okay, and, are there any other things that cause Tinnitus?

Kathy (7:01) Yes. And as just stated indirectly exposure to loud noise, otosclerosis, Meniere's disease, obstructions in the middle ear, head and neck trauma, TMJ or TMD, sinus pressure and barometric trauma, traumatic brain injury, ototoxic drugs, meaning medications that can damage either the auditory and or the balance mechanisms. And still even more diseases and medical conditions and Jamie there are also several factors that many believe exacerbates the condition. To include of particular importance stress and fatigue but also sugar, artificial sweeteners, sodium, caffeine, nicotine, high cholesterol and high blood pressure.

Betsy (8:06) So, basically there are a multitude of causes which I guess explains why it's so common. But, can you tell us what the most common causes are?

Kathy (8:18) Hearing loss and prolonged exposure to loud noise. Betsy, did you know that Tinnitus and hearing loss are the number one and number two service related disabilities amongst our veterans today. And, when you think about it you have probably heard of at least one person, if not more, complain of their ears ringing after attending a concert. Sometimes it's temporary, sometimes not. Depending on the amount of damage done.

Jamie (8:52) Well, as you mentioned that, you know when I was a teenager I went to my first concert and all I remember is how I felt after the concert and it was that I just kept hearing this loud humming in my ears for hours and hours after the concert ended. Luckily, it ended up going away but that's all I remember from the experience, I don't even remember the music.

Betsy (9:14) Wow, yeah I've also had experiences like that. I now have learned that wearing earplugs at very loud events can help protect my hearing. So, what does Tinnitus actually sound like to people?

Kathy (9:28) Well, it's different for everyone but it can sound like hissing, humming, ringing, buzzing, drowning, roaring, clicking, crickets, chirping and most often for me Betsy, it sounds like the furnace or the air conditioner in running. But you know I have actually had two different sounds occurring in one ear with a third sound in the other ear all at the same time.

Betsy (10:00) Oh my gosh, well I'm in the hissing volume myself and it only bothers me when I notice it but it seems I tune it out most of the time, no pun intended, lost into the heart of a conversation or constantly thinking of list of things I have to do, blah, blah, blah you know.

Jamie (10:22) So Kathy, when someone starts experiencing Tinnitus, is it something that comes on gradually or does it just you know come on full strength suddenly?

Kathy (10:31) It can do both. And it can also be either acute which is temporary or chronic which is ongoing.

Jamie (10:43) Okay, and so once you have Tinnitus, how do people who have it cope? I mean you know Betsy talked about being able to get lost in thought, it

sounds like she can ignore it a bit but you know for people that get it is it that they just ignore it, is it that their brain adjust to it, is it both?

Kathy (11:01) Well Jamie that depends. The good news is, and I want everyone to hear this, in 97% of the cases people with Tinnitus habituate to it as Betsy just indicated. Meaning they may be aware of it but it no longer or rarely bothers them. And for those, by the way who might be interested in learning what the actual definition of habituation is, it's the conscious or unconscious decreased to stimulus after being repeatedly exposed to it. For example, I used to live near some train tracks. Every morning like clockwork at 4:00am a train would roar by and when we first move into that house it would wake me up every single time. However, after a short period of time I could sleep right through it. It no longer bothered me. For the 97% who habituate, it usually does take within 6 to 18 months so it's not something that happens super quick. That's for those who may be listening and they're experiencing a recent onset of Tinnitus. The likelihood that you will habituate is incredibly high. In the meantime, while waiting for that to happen there are coping strategies that can assist in the management of Tinnitus. And yes, I said management as there is no cure at this time. But I'm sorry to say that unfortunately for 2 to 3% of individuals they still have difficulty coping 2 years out and more. And for those individuals more formalized help is needed.

Betsy (13:02) Well that's a relief. I hope I'm not one of the unlucky ones in the 3%, hmmm.

Kathy (13:09) No Betsy, you're not. As you've already mentioned you have habituated to it. Basically for those who are struggling significantly with their Tinnitus, what is happening is the limbic system is sounding an alarm, it hasn't yet determined that Tinnitus is not a threat.

Jamie (13:29) So, am I right in saying then that the limbic system is the part of the brain that deals with is it emotions and memory?

Kathy (13:37) That is correct Jamie. Let me see if I can explain this with a little more detail and depth because I think it's really helpful for the individual struggling to understand what is going on within their brain. Sometimes they think they are crazy or going crazy and that is just not true, so here's what's

happening. When you're experiencing Tinnitus distress which are those with moderate-to-severe levels. First, your struggles indicate that your limbic system is in the driver seat, meaning in control rather than the prefrontal cortex of your brain. The limbic system is the part of the brain that reacts to sound. It's responsible for the fight, flight or freeze response. And as you just said Jamie, it controls your emotions, but it does not have the ability to respond, only to react. So when you're experiencing distress your limbic system is in charge and feels as if something life-threatening is happening when in reality, Tinnitus is not life-threatening at all. It's simply noise, it cannot hurt you. So in a sense, it's like a fire alarm going off in your head but there is no actual fire. Unfortunately, when this happens, it makes it very difficult for your brain to habituate to the Tinnitus.

Jamie (15:19) Got it. Okay, so can hearing aids help people that have Tinnitus?

Kathy (15:23) Yes, absolutely and so can the practice of mindfulness but we'll talk more about that later. Wearing hearing aids can help to reduce the burden of Tinnitus for 60% of those patients because of the masking effect as I explained earlier.

Jamie (15:44) Okay, and if you can I think you may have mentioned or touched on this but what is the connection then between Tinnitus and hearing loss?

Kathy (15:53) Well Jamie, simply put it is your brain's response to the lack of sound. The brain craves sound and when it isn't getting it in a certain frequency range because of a hearing loss, it creates its own. Most researchers agree that Tinnitus begins as a result of the brain trying to regain the ability to hear the sound frequencies lost. So, how does it do that? By turning up the signals of neighboring frequencies. And again Jamie, let me remind everyone that 90% of people with Tinnitus have hearing loss.

Betsy (16:36) Yep, that would be me, the beginning stages of hearing loss. So now I use hearing aids when needed.

Kathy (16:44) Now Betsy, I'm going to go off on an aside here. You need to wear your hearing aids at least 8 hours a day every day or you're not going to reap the full benefit of this highly effective treatment. If you only wear them on Wednesday, when you go to the book club and Friday night out with your friends,

I hate to say this but you basically wasted your money but that's another topic for another day.

Betsy (17:15) Thanks. Wow!

Jamie (17:17) And, that's another right, these are all good reminders and reasons that we should all be getting our hearing checked regularly and I think you know people don't always understand the importance of that. And you know Kathy, the other thing I was wondering as we were talking about all of this, is there a genetic component to Tinnitus?

Kathy (17:37) Before I answer your question Jamie, yes, absolutely people need to get their hearing checked regularly even young people. We get our eyes and teeth checked regularly do we not? Why on earth wouldn't we include our hearing? There are so very many comorbidities with other medical conditions and untreated hearing loss that it is not even funny. And a particular concern is cognitive decline, consequently the sooner you get hearing help the better. Now regarding your question about a genetic component. Yes, there can be particularly if the individual has bilateral Tinnitus meaning, Tinnitus in both ears.

Betsy (18:24) And it can be stress-related too. I mean, I definitely find myself noticing it more when I'm stressed.

Kathy (18:32) Stress absolutely exacerbates it and so does fatigue which is why it is so very important to take good care of yourself.

Jamie (18:42) And so aside from people, you know, getting their hearing checked and getting hearing aids if warranted, what else can people do to alleviate Tinnitus?

Kathy (18:54) Well there's lots of treatments out there. The current treatments include sound therapy, which consists of masking distractions, habituation and neuromodulation good self-care. Meaning a healthy diet, exercise, use of stress reduction techniques. Limited use of ototoxic drugs, staying away from people and groups with a woe-is-me attitude regarding their Tinnitus. Good sleep hygiene, reframing your thinking which is also known as cognitive behavioral therapy. And this is particularly for those who are two years out and still experiencing difficulty with their Tinnitus. Use of this therapy does involved counseling Jamie but just to give you an idea of what reframing your thinking

means, I'm going to give you an example. So, an individual experiences their Tinnitus absolutely roaring alright so an event has occurred. The event is Tinnitus driving him crazy with that event comes a thought. This disgusting noise is going to ruin my dinner tonight with my friends. Now along with that thought then it triggers an emotion which would most likely be anger or frustration, right? But with CBT, you're trained to think differently. So again, with the exact same scenario the event roaring Tinnitus the thought I am not going to let my Tinnitus ruin my dinner tonight with friends. I'm going to be having so much fun, I won't even notice it. The emotion happy anticipation. So, do you see the difference? It is very effective. However, I think it's also important to understand that our brains are actually wired to think negatively. Consequently, it is a difficult pattern to shift hence the need for cognitive behavioral therapy with a counselor. Now, to continue with the treatment list; yoga, tai chi, relaxation techniques, including deep breathing, meditation and particularly mindfulness. Mindfulness is the ability to be fully present and aware of our current reality without being overly reactive, which is exactly what is going on with those struggling with Tinnitus. Their limbic system is over-reactive. Best, if there is one magic bullet for Tinnitus at this point personally, I believe its mindfulness and for several reasons. First because it helps with improving concentration and sleep and reducing stress, depression and anxiety all of which can be impacted by the Tinnitus. Not to mention, putting your prefrontal cortex back into the driver's seat.

Betsy (22:13) Mind over matter, right?

Kathy (12:15) Let me explain, mindfulness over time with consistent daily practice and Jamie the recommendation is two 20 minute sessions a day can literally rewire your brain, which is basically neuroplasticity. You have probably heard of that term. It can put the prefrontal cortex, the thinking logical rational portion of your brain, which is what enables you to respond back and control. We've talked about for those who are struggling their limbic system is running the show, right? And remember, your limbic system can only react. When the prefrontal cortex is in control it can respond. Also, when the prefrontal cortex is in control, it helps to calm down the limbic system so that you no longer experience Tinnitus as a threat. That's enabling you to habituate. Now, that is why I consider

mindfulness the magic bullet but again, just like with cognitive behavioral therapy it's a long-term practice. It takes time and it takes consistence.

Betsy (23:42) Those are great solutions to try out. Meditation has slowed me down and calmed the stress level. Life feels urgent often especially lately so I know I need to stop and remember that magic bullet, mindfulness, it really is good.

Jamie (24:01) Stress relief in any form is something probably everyone could use a bit of right now, right? So to sum things up, there are ways to help combat Tinnitus. Solutions may include; sound enrichment, cognitive behavioral therapy, relaxation strategies, sleep solutions and assistive devices such as hearing aids. The Hearing Health Foundation and the National Institute on Deafness and other communication disorders or NIDCD for those of you who know the acronyms. Those websites have some great information on Tinnitus as well and especially if you want to take an even deeper look. This has been really fascinating and enlightening Kathy. I feel like all of the information you shared with us is going to be super helpful for people with Tinnitus and that really is what oei is all about helping people with their hearing struggles. So thank you so much for spending time with us today and sharing your expertise.

Kathy (25:00) Thank you Jamie for the opportunity. It was my pleasure.

Betsy (25:05) This has been wonderful Kathy, thank you. So for further information on hearing health resources, please visit oeius.org that's oeius.org and click on contact and don't forget to join us next month for another informative episode of 'Have you Heard, a Listening Project' we'll be discussing how to prepare for medical appointments or hospital stays during the pandemic and beyond and we'll share some extra tips for people with hearing loss. In the meantime, don't forget to subscribe to this podcast so you don't miss out. I'm Betsy and I'm Jamie and we want to thank you for joining us today on the "Have you Heard' podcast and remember to stay safe and connected.

Copyright© 2021 by OEI. Guests of the podcast and resources mentioned are for interest for our audience only.

There are no marketing agreements of incentives involved.