

>> TIM: If you have a T-coil turn it on. We are testing.
Good morning, everyone, can you hear me. We are at our new location in Sherman Oaks?

>> DANNY: I can hear you.

>> TIM: If you were here we wouldn't need a T-coil or anything. I wish I had your voice.

>> DANNY: Thank you, Tim.

>> TIM: You are welcome, Danny.
I see people bending down putting tape on. I think we are okay with it.
Way to go, Jane.

>> JANE: Way.

>> DANNY: Jane rocks.

>> TIM: I think you see our captions are much bigger here.

>> TIM: We are starting in a few minutes.

>> JENN: It's exactly 10:00 going by that clock.
Good morning, everyone hear me? Can everyone hear me? Want me to come closer?

>> TIM: Probably stand here closer, more in front.

>> JENN: Can everyone see me okay?
Good morning. Welcome to Sherman Oaks library, hopefully our new home away from home.
[Applause]
So – I need a clicker.
For those of you -- I see a lot of new faces. Please sign in, get a name tag. Give us your contact information, and we also have a little form for you to fill out. If you haven't done that, please, please, we want to stay in contact with you. And the only way to do that is to sign in. If you haven't done it, just do it during break.
Heather is not here. She is our president, and at the board of trustees meeting at LAX. So she will be taking notes and report back for our next meeting.
I am Jennifer Nelson, Vice-President of the steering committee. We are just --

>> DIANE: Can't see you. We need a light on. Would help.

>> DANNY: Somebody asked for it to be off. We will have to agree on something.

>> JENN: Can -- raise your hand if you could see me over here.
We will get a light for you, but most people can see.
Just bear with us for this one time.
Heather Lehr is our president. She's not here. She's at the board of trustees meeting. The California HLAA meeting. And she's going to be taking notes for us regarding just things going on in California, the walk and different things. When she comes back next month, we will be – she will let us know what they spoke about. She has things she was going to bring up for our chapter as well.

And this is –

>> TIM: This is Tim, by the way. I am the secretary, and this is our first time here, so I think so good, bear with us. Hopefully you found the place okay. And you see it's a nice new place here. Everything is set up for us. We got here early, and I think next meeting will be more smooth. So good.

The slide is up already. We may have first-time people here. Anyone coming from the first time that's planning on coming again. Sandy.

>> DANNY: This is my first time HERE.

>> TIM: I didn't say that quite right. First time with the chapter. Who is here for the first time to a chapter meeting.

If you wouldn't mind, we would like to pass around the microphone, give a quick overview, your name, your hearing loss, we have a full agenda but we want people to know who you are. * if you wouldn't mind...

Are you – are you a first-timer here?

>> JENN: He was in Pasadena a long time ago.

>> GARY B: Most frequently was at the Santa Monica. Most recently was attending at the Santa Monica club. Gary Bond. Hearing loss both ears, primarily (inaudible).

>> TINA: Tina Elliot. And I was attending Santa Monica with Gary and Sherry. First time. I am so excited. Hearing loss both ears, so there.

>> TIM: Hi Georgia, we know you.

>> SANDY: I lost my hearing last May, in the right ear, and I lost hearing in my left ear in 2009. And January I got a cochlear implant on my right, and have a ReSound hearing aid on my left. And so happy to be in a room with people who have this challenge.

>> MELVIN: My first time here, and my sister Teri been trying to get me to come for quite some time. I am a Vietnam veteran and lost my hearing in the service, and it's gotten progressively worse, so VA got me hearing aids and possibly a cochlear implant. Glad to be here.

>> SHAR: I am Shar Cohen. I am a Doctor of Audiology. For the longest time I've been telling my patients to come join this chapter. I have never been here. To know how to fix what is broken, the more I learn the more I can be helpful to my patients. Thank you.

>> RICK: Rick Bond, and here visiting my brother from Kansas. This is the first time for me. We all have hearing loss. I have hearing aids both ears; it's a family thing. Go Jayhawks.

>> DIANE D: Thank God for captioning. I am Diane. Had a hearing loss now for over 10 years. My mother and grandmother went deaf. I have a low-frequency hearing loss. I have eustachian tube dysfunction. Apparently there is not much you can do about that I've been told by two different doctors. No matter what hearing aid I get -- had six different ones. These are ReSound, and for whatever reason, I can't hear anything.

They work fine with my iPhone which is why I got it. I could never hear on my cell phone. Now I can't hear on my home phone. It's a challenging situation with hearing loss. And it's nice to be with a group of people who understand that. I got this little thing for my son. He got so frustrated, having me repeat myself. We won't listen to me.

>> MALIK: Bring him here.

[Applause]

>> DIANE D: It's okay. I will stand here and enjoy it.

>> JENN: Welcome all of you. Thank you for coming. I hope we can – we are here to provide support. I have a hearing loss. My hearing loss is genetic. I'm not going into that. I have a cochlear implant and have a hearing aid to link. I am very happy with that and Tim also has –

>> TIM: I was born with hearing loss. I have moderate-to-severe hearing loss. I have two in-canal hearing aids. Next time I will get more powerful ones behind the ear. These don't have T-coil. I found when you are born with hearing loss, you just adapt to it. I read lips. This chapter is alerting me to (inaudible) to better my hearing.

Glad you are all here. Go Jayhawks.

So steering committee.

Some of you know we have two open positions. They were vacated throughout the last year, and we are running with a small team right now. There are just four of us including myself. We are at the point now in March we would like to – can you see May? Or do you want to see me?

So we are going to have our steering committee election after the break, after Gary does his presentation and we do Q & A with him. We want to alert you now to some of the requirements we ask for the steering committee, if you might be interested, and have time to think about it; after the break, who would like to be nominated or nominate themselves for the steering committee. We will hold an election if we have more than two candidates. I think we still have to yea/nay.

We do our best to make sure our collaboration is as efficient as possible. We use email, online tools. I will help you. Better, faster than email and yahoo group. We have to attend meetings. We have steering committee meeting after -- for roughly an hour a week communication, helping make decisions, planning meetings, stuff like that. We ask that you are proactive in helping us set up and tear down. There is not much teardown, but setup need help. Written communication and email and so forth.

Anything to add?

>> JENN: We need you to be a paid member of HLAA. You need – in order to do that, you need to go on the website and sign up that way. And I think it's \$35 for the year, nothing. But we still need you to be a paid member.

The other thing I would like you to think about is that it is a commitment. It's a volunteer position, but it is a commitment. And we are constantly emailing or having the steering committee meetings. We come early to set up. We stay late to tear down, it is a commitment. If you feel "I want to help sometimes but not that committed," we have other things, like smaller jobs like being our greeter. We haven't figured out

exactly what you would do, but you can do some smaller things where your commitment to the steering committee wouldn't be as high.

But like I said, it is a volunteer position so we don't want to say you have to put in X amount of hours. But it is being able to be in communication constantly, I would say, within 24 hours; we send an email, we need to hear back, so we need to make decisions constantly ongoing. So if you are not one to email as much, not into technology, maybe commit as head of a committee.

Think about these bullet points. We will vote after the break. Want people to know what it means to be on the steering committee.

Aren't we going to pay – those of you who don't know or do know, HLAA, puts on a huge convention every year, in a different city; this year in Minneapolis, my hometown. His. That's in June. We will talk about it more at the next meeting. But if you do come on to the steering committee, we will pay for your registration fee, and that's \$125. Just a little thing to sweeten the pot.

>> TIM: The deadline is the 31st. And there are forms to fill out. I did it a couple days ago quick. I will fill it out for you as well. We will figure that out.

>> TERI: Is that just the early bird deadline?

>> TIM: Teri asked is that the early bird deadline? If you are planning on going to the convention, that's the early bird.

If you have questions, we can help you over the break or after the meeting.

So I think that's about it. If there are any questions before we go on to our speaker Gary? All good?

Okay.

So I think we are ready for Gary.

I don't know, Gary, you want to do an intro? This is Gary here. So let me get out of the way here. This is Gary Dorf, and there is his information there. We found that we really wanted him – I think he did a presentation last month in the Orange County chapter meeting. We heard about it.

He will give a little more about an introduction.

We will get him set up on his laptop.

>> GARY DORF: It works.

>> TIM: Here's a microphone for you. Whenever you are ready.

>> GARY DORF: Thank you. All right. Very distinguished-looking group. First of all, congratulations on your new location. This is certainly better for me. I live in Newport Beach. So Pasadena would have been a little more of a schlep.

I did speak last month in Orange, to your associates Orange County. And they actually like what I had to say. So I got another Saturday because of it.

It's a pleasure to be here.

Thank you to the people that did invite me. Teri I was working with you on line, so I really appreciate it.

This is one of the more enjoyable aspects of my job. I do a lot, as you saw by my bio. I had 40 years as an audiologist. I grew up in Brooklyn, New York. Thank

you. I got my master's degree in Brooklyn, wound up in Canada for a few years running in Saskatoon, Saskatchewan.

Back in the 70s I didn't know too much about geography of Canada. They called me, "How would you like to go to Saskatoon Saskatchewan?" "If you are in New York and coming here, drive to North Dakota and make a right." I ran an audiology and hearing aid program. Worked with a lot of students in the school for the Deaf, 1979-80. Literally when I moved to Newport Beach, minus 78 to plus 74 degrees.

I did run a retail business in Seal Beach. Then in 1997 sold my practice and started representing manufacturers in the industry. It was my own company. About seven years ago I sold it to Oticon, one of the leading companies in the world in terms of developing hearing aids.

I work in Costa Mesa. I support about 11 people. Oticon's office on the West Coast is what I manage.

Just a brief little bit of Oticon. Not going to talk too much about Oticon because that's not what I am here today to talk about. Oticon has been in business 114 years. They are the oldest hearing aid company in the world, from Denmark, started by a man named William Demotte (PHONETIC) in the early 1800s. His wife was deaf.

He was wealthy enough to scour the world for options for his wife. Came up with typical devices of that year. And that business has maintained its strength and support for 114-116 years now.

Oticon is going to be introducing a new implant into the United States through Oticon Medical. There is an implant company most people are not aware of called Neurolec, a French-based company. Oticon bought them a few years ago, introducing that technology probably 2019-2020. That product is now widely available in Europe.

A bit of my background, I used to represent Med-El. Very, very large in Europe. You have Med-El? Just to give you a little insight into the company history.

My talk today is really about cognitive issues, and how hearing loss impacts cognitive issues. I know I am speaking to the choir. But there is a lot of new information and studies.

How I enjoy my lecturing is really engaging the audience. If you have questions about the materials, please ask me now. It's fresh in your mind and fresh on my mind. If I see there are a lost questions in the presentation, I will minimize some of the slides to answer your questions. Please don't ask me anything personally about your hearing aids or devices. I will be here afterwards and more than happy to answer. Please keep your questions to the material I will be presenting.

Okay? Good, question already.

>> GEORGIA: Cochlear implant?

>> GARY DORF: Oticon will be introducing the fourth in the United States. It is now available in Europe but not in the United States because of FDA.

I left materials on your table. Hope you all have a packet. Brain hearing is a concept we firmly believe in at Oticon. You really hear with your brain, not your ears. The ears are the conduit, and the important aspect of hearing health care or hearing aids or cochlear implant is really to send a signal to the brain that the brain really can

make sense of. That's what all the hearing aid manufacturers, all the cochlear implant manufacturers, they strive to come up with that technology. And the digital chip provides that technology. We know whatever hearing aid you are wearing, whatever cochlear implant you are wearing, it's really not possible to get back to truly normal hearing. We understand that as manufacturers and engineers. Reality is it's going to be very hard to duplicate what the ear does.

I will talk about new science and research we are going through, the concept is to develop technology that really feeds the brain because the brain ultimately does all the work. We hear with our brains in the outer ear.

Anyone know the definition of "working memory"? It's what we all have. Our working memory basically is going to be dictated by how cognitively you are able to function. But what happens when we hear. First we need two ears to work really, really well. I know everyone understands that concept. We need a robust working memory. That comes down to you how cognitively we are managing our lives. Your working memory, when you hear a word, the working memory says "I heard that word before and understand what that word is."

Comes down to keeping your brain healthy and cognitively as alive as it can be. As long as your brain has really good working memory, all those words we stored up still will come back to us.

I am not naïve. I am 65, mine is not what it used to be. I see an actor, a picture – 5, 10 years ago I would have had that memory in my bank.

We know how sound is turned into a useful sound, sent to the brain and conceptually you are able to understand who is speaking and what's being said.

I like to show this slide because it's an important slide, and many of you might have seen the slide before, but I think it talks of what actually goes on in the cochlea, which is obviously the inner ear. On the right you see a normal cochlea. All these cells really well intact. Now this slide, you see a lot of this area not intact. This is a typical cochlea, someone with a noise-induced hearing loss, something that happens when we age. This area here provides us with those sounds that are 90% of our understanding of speech. Consonant sounds provide 90% of our intelligibility.

When you start losing hair cells like this, you hear things but don't understand it. 90% of your intelligibility is based on your ability to understand consonant sounds. We are pretty much in the same generation, most of us, not all of us. Norm Crosby, he was severely hearing-impaired as a child. Parents did not know it. He developed his own language because he didn't hear the consonant sounds well. He was a very smart kid obviously, because he made that into his career, started by talking nonsense. He had a significant hearing loss, but unfortunately wasn't picked up until he was a teenager, and therefore, he continued on in life to have difficulties.

Once you lose your ability to hear certain sounds it becomes difficult. Most of us hear -- you hear speech loud enough, but missing out words. Did she say shirt? Street? Consonant disengagement.

I have a friend, Mark Parker, Audiologist, Ph.D., working on stem cell research that hopefully will be able to generate the cochlear hair cells. Now a lot depends on

what the government allows money and funding for stem cell research. I would encourage you all to make sure your constituent and politicians, whenever stem cell research becomes a discussion, it's good science.

They've done good work with animals, mice, to recognize this is a great possibility. Not sure I will see it in my lifetime, but our future holds really good science, and that's an important concept helping others with future hearing loss.

We know hearing loss is a significant issue in our population. The #1 problem with returning veterans over the past 7-10 years from the current wars we are fighting, is tinnitus and hearing loss.

I get into a lot of different offices and work with different patient and audiologists and hearing care professionals.

A quick story about a 29-year-old woman I saw in Seattle a few years ago. Did two tours of duty. Came home with a hearing loss that looked like an 80-year-old individual. Went into the service without any hearing loss.

The veterans association is bombarded with demand from younger and older veterans with hearing loss. We know it's an issue, something we have to look at closely and figure out how to manage.

This is audience participation time.

What I want to do is try to make you understand the challenge that you all that are hearing-impaired, about cognitively ability and how much you put in each and every day. I know I am preaching to the choir. I know it's something you are familiar with. Sometimes I speak with people on the cusp; that mild hearing loss. They don't want to get hearing aids because they don't like how it looks.

The biggest challenge I have had over 40 years working with the public, people don't think that mild-to-moderate hearing loss is isn't a concern.

This shows you the disengagement when a sound isn't as it should be.

I will do this visually. All I will ask you to do, in tandem, call out the words you see. I will go through it. When I am convinced that everybody called out a word, I will go to the next slide.

>> Toast.

>> Basket.

>> Lunch.

>> DANNY: Dinner.

>> Glasses. Washer. Buckle. Coast. Stones. Shoes. Lunch.

>> GARY DORF: Thanks for your participation.

>> What I am trying to show by that is the more difficult the presentation, the more difficult cognitively is understanding what that word is. If you apply this to auditory functioning, that is even more of a difficult task because you don't see the words in front of you. But visually you can see cognitively how it takes longer.

The biggest problem, I think, as we do recognize there is a hearing loss, you can read this. It's the act of limiting social activity.

Common lines of – you tend to limit social activities. It's not unusual to me as often as I go into office and see patients, that a spouse or even the hearing-impaired

person will say, "I don't go. I don't enjoy it. I don't watch TV anymore. Don't feel I want to go to that party and get together with my friends anymore."

That's the saddest thing I hear. It's disengagement not only from life but your friends and family as well.

When we talk to people, we want people to understand exactly what hearing loss creates. It creates another level of stress. Another level of disengagement. That becomes a problem in making sure people feel attached. The more you withdraw, the more you will have cognitive decline. And that's what we really want to prevent.

Even those people with mild-to-moderate hearing loss, this message is starting to resonate. I do community seminars where a lot of people come through the community because they are starting to recognize mild-to-moderate disability like hearing the TV, spouses saying they're talking too loud or kids saying they can't hear.

Once you hear that hearing loss can create that cognitive disassociation, it really hits home.

Hearing aids won't prevent dementia and it won't prevent Alzheimer's.

>> DIANE: This has always fascinated me because I always wondered. I consider myself shy and not thrilled about going to parties or anything. And I always wondered if having a hearing loss what effect it has had on my personality. If I didn't have the hearing loss and even the vision loss, if I would be more outgoing.

Years ago, some of us found an online test to see if you are on autism or Asperger's. Because of our hearing loss we all came out on that spectrum.

>> GARY DORF: Thank you for your comment, Diane.

Be careful those online tests. There are cognitive tests you can take on line also, but any of those tests you really take with a grain of salt.

>> DIANE: We did.

>> GARY DORF: I've taken those tests also. Not sure I can even speak after that.

I talk about feeling lonely and feeling trapped. Diane talks to that point. You don't feel comfortable. At times you will be embarrassed. There is nothing wrong with telling people you have a hearing loss. The more you tell people that, the more you will feel empowered to be engaged.

One study done at Johns Hopkins. They did this study in 2013, and this was really one of the first studies that we as audiologists and hearing-care professionals was hoping someone would do. They didn't have the bandwidth, didn't have the funds, and finally Dr. Lynne, he was able to get the funding to do the study, basically looking at hearing loss and cognitive decline in adults.

There are about 800 people in the study, from 64 to 75. Looked at people who had hearing loss and it was a mild-to-severe hearing loss, within that range. And follow those patients over a period of time. Who wore hearing aids versus those who decided not to wear hearing aids.

If I can control the temperature, everybody, I would snap my fingers. I noticed some of you getting a little chilly. I'm fine with it.

Study looked at those patients. And what the study basically did was look at this 11-year study and basically looked at a cognitive score.

Anybody here taken a cognitive test by a psychologist or a doctor? Anyone?

>> Long time ago.

>> GARY DORF: Cognitive tests are: What day is it? What month is it? Who is the President? What state do you live in?

My wife had a TIA, not a major stroke. When it came to cognitive testing, all pictures; name this. The only thing she couldn't name was a hammock, and the doctor said that is one of the often missed pictures.

He looked at two different tests. You see the 3M, DSS – different kinds of cognitive testing. Wanted to make sure one test wasn't skewing results way or the other. Looking at people with normal hearing, over that 11-year period, cognitive decline in normal hearing person was evident. We know as we age we will start losing some of that working memory we talk about, and therefore some of that cognitive decline will occur.

Looking at patients with hearing loss; over that period of time, what, if any, cognitive decline was there, and was it greater than people with normal hearing. In both tests, more significant than in normal hearing people.

We talked much about it, but didn't have data to hold on to. This was a seminal study in terms of looking at hearing loss. And again, looking at mild-to-moderate, not looking at severe-to-profound.

There are things that we understand are risk factors, and these things have been talked about for years. We know that diabetes, smoking, depression, genetic predisposition -- obviously things you don't have control over.

There are some things you can control: Cognitive engagement, physical activity. When my wife first had a stroke, these were things that were minimized. It wasn't she didn't have the ability to do it; it was she didn't have the confidence to do it. Like a little hole in her brain. We live a normal life. She has a bit of a hearing loss. What she also came out of this, after the stroke, she had significant tinnitus. That was the one thing that was surprising. It's not commonplace, that tinnitus after stroke, but she did. As you know with tinnitus, it's still a work in progress.

Fortunately, cognitive engagement is crucial. Get out there and make sure you are comfortable.

The next question we had, and hoping to see a follow-up study. What of those patients with hearing loss in that first study, if they were fitted with a hearing aid what effect that would have on cognition?

So fortunately, a study was being done in Bordeaux, France, looking at over 3,000 participants. A group not wearing hearing aids and a large group of people that were wearing hearing aids, with similar types of hearing loss. They had enough people to make this a very significant finding. They found that hearing aids did improve cognitive effort more so than people... yes, cognitive issues will occur, as we grow older – if we can have a stopgap in some form, and that hearing aid is that form. Don't think it will restore cognitive capacity in every single patient. Looking at studies and

ones coming out in the next few years, recommend strongly people should wear hearing aids.

Saw this presented at a scientific event. A woman in Boulder, Colorado, doing a study looking at brain activity. I think everybody would have seen at some point, when they do a brain scan, you see colors, different locations that get stimulated based upon something of usage. I actually just saw yesterday on The Today Show a study of people who walk and text. So the first thing they found – this is an aside I will share to you.

>> They're stupid.

>> GARY DORF: First thing they found, people mostly in their 60s and 70s and followed up with younger people, 99% of the patients cannot walk a straight line and text. They are going this way, this way, this way. That was interesting. And the second thing they did was put a cap on one of these individuals and had electrodes tied to it and put them on a treadmill and asked to walk as you would normally, on the treadmill, and watched the activity of the brain. It shows it was very, very focused on one activity.

You know how we all talk about multitasking? That's impossible, because, as they showed with him -- and I will show you my autistic grandson, 17, came to me, home from school. He said to me, "You can't multitask. That's a mistake. Nobody can multitask, if you are doing a task you have to do a 100%, otherwise your brain gets cloudy." He knew that.

They did this yesterday on TV, and put this cap on the reporter's head, brain two colors, focused. That's what the brain showed. Started doing the same thing with the texting, you should have seen the brain light up. The offshoot of that discussion was multitasking... What this study did -- sorry to digress. What this study does from University of Boulder, Colorado, she was looking at brain activity, looking at people with hearing loss. Able to mirror image the brain, and watch people who had hearing loss and see how the part of the brain that manages hearing loss was minimized in activity and recognized that the activity was moving more to the visual side of the brain.

She said she really needed to prove this more so, to find someone with a significant, severe sudden hearing loss, like overnight. As luck would have it, her 27-year-old graduate student working with her on the study literally woke up one day, and from medication he took, he had a severe profound hearing loss. Treated with medication, most of his hearing came back. But that's not the story. She could evaluate the brain activity. Knew he was normal hearing and had studies of his brain before he lost his hearing, and you saw all the activity in that neural pathway in the brain as his hearing loss declined, she took pictures of. You saw the activity slowly move, and had these amazing color pictures which showed the activity of that hearing center moving to the visual side of where the brain activity happened. I think the study is still in peer review. She presented this about 10 months ago and looking to get it published. So going through that process. That was hugely impressive in terms of understanding. Tells us the sooner we can stimulate our brain cortex auditory...

Obviously the brain does all this function.

Where sounds come from. Separate speech from noise we know is the hardest thing for hearing-impaired to consider. Focus, and also recognize –

We talk about cognitive hearing. I have the ability, my cognitive ability is pretty much intact. I could be talking with my friend Gary here -- like your name -- and Jennifer, right? I could be talking to Gary, and Jennifer could lean over and say something to somebody and she might say "I like what Gary's wearing." You, not me. I could hear her. I could still be talking to Gary, but I could be paying attention to Jennifer. Okay?

Cognitively we all have the ability to do that. Everybody understand that? I am sure at some point in everybody's lives, they've done that. Now, with the severe hearing impairment, that becomes a little more difficult of a task. But cognitively we have the ability to do that. Because it's not that I have to face Jennifer, because my ear, because I have decent hearing, I can hear Jennifer, and I keep shaking my head to Gary, thinking I am still paying attention to him. Little does he know I am paying attention to Jennifer. Get that concept?

For those with cochlear implants, is that a very difficult task for you?

>> MALIK: Impossible.

>> JENN: I would say very possible.

>> GARY DORF: I am not going to dispute either one of you. It's your personal reality and perception.

Malik.

Your son and you, you are like twins.

>> MASAI: (Inaudible).

>> GARY DORF: That task is important cognitively. Doesn't mean you don't have the cognitive ability to do it. Obviously the cochlear implant in his situation isn't allowing that activity to occur.

>> MALIK: And I only have one.

>> GARY DORF: That's not a binaural issue.

How many of you are wearing hearing aids, not cochlear implants? Majority of you.

I know some of you might be wearing a hearing aid and a cochlear implant.

For the past 20 years -- digital hearing aids came out in 1996. Oticon happened to be the first company to introduce digital hearing aids with a product called DigiFocus. They were groundbreaking. The other companies followed suit.

The problem with those past 20 years -- I've been in this industry a long time, seen a lot of changes. The issue with hearing aids that some of you are still wearing, the manufacturers were always looking at directional microphones. Thought was if I am hearing-impaired, I want to talk to the person in front of me, get rid of all the noise around me. Understand that?

There were six major companies in the industry that provided about 98 percent of the world's hearing aids. Those six companies all were making sure that directional process worked as best as they can. Problem with that, even though we didn't have the ability to do anything about it because the chips were not fast enough, problem was

you take away the cognitive ability of the brain to do what I just explained to you, talking to Gary, hearing Jennifer.

The more we create these directional microphones, the majority of patients that walk into private practice offices, they will say to you "I hear the person sitting in front of me, but I can't hear the person sitting on the side."

Everybody experience that a little bit? That's because you are wearing very, very effective very good digitally-processed hearing aids with directional microphones. We also use the word beam-forming. Whenever you hear the word beam-forming and directional -- one company started using beam forming, thinking it was different from directionality.

What Oticon did last year – almost two years ago. June 2016, Oticon said we have to do something different. Even though directional hearing aids really was a significant upgrade and did provide significant benefit. When we started thinking about how the brain works – that directionality process – that's good. But there is something different out there, and I am sure the manufacturers will jump on ship.

If we look at the concept of BrainHearing, we want to understand how the brain functions and provide technology through the ears to the brain that maintains the integrity of that ability of the brain, meaning I am listening to Gary, looking at Gary but hearing Jennifer. That's normal cognitive hearing. What Oticon did and, it took six years, 70 to 80 engineers, invented a new chip.

Technology has increased dramatically. We could do something different than what we've been doing the past 20 years. We developed technology called OPN.

He's wearing a hearing aid, his son is nearby, but behind and on the side of him. We don't want him to miss anything his son is hearing. We see people further away, still want to pick up that sound but probably at a lower level because it's not that crucial to hear.

Developed a chip that has 10 milliseconds that every time you walk down the street, hearing aid is changing every 10 milliseconds; wants to analyze clearly-defined speech versus where the noise is.

Jennifer is clearly-defined. I should be able to focus if I want to Jennifer because the hearing aid is now allowing me, using some directional technology, but not the technology of old.

Hearing 10 tables behind me, that's speech babble. That's impossible, something I don't want to hear. The beauty of the speed of the chip in technology now, the ability to analyze what is speech, what is noise.

Looking at spectral and temporal differences. Speech starts, stops, different intonation paths. Noise, constant. What I tell people to check their hearing aids make sure noise reduction is working at all, have someone turn on a vacuum cleaner behind and talk to someone in front of you. See if the vacuum cleaner comes on loud and then lowers.

>> JENN: I don't want to give an advertisement for OPN. Before I got my implant I tried them. Walking in a vast area on Mulholland, hearing a dog barking behind me. I was able to identify that. The OPN technology is really great. And now

back to the cochlear implant thing, I haven't been able to do that. I am back to "Where? Who is talking to me." Interesting.

>> GARY DORF: Thank you.

This is certainly a commercial, the new Oticon medical implant, when it becomes available, like I said late 2019-2020, it will have the OPN chip in it.

>> Just talking about this, I remembered a few times within the last year where I have been walking with someone on the beach, along the shore and they would be to this side and the wave on that side, and like – like my left hearing aid was – I have the masking technology, masking out the sound of the ocean, but also made it much more difficult to hear the person next to me because I only have the one ear. Is that what you are saying? With this technology I would have more of a 360 kind of sound?

>> GARY DORF: Not exactly. Simply because – you have a cochlear implant or two hearing aids? Two hearing aids.

You would have a different experience with the Oticon aids, no question, only because of the way the hearing aids work together.

How old are your hearing aids? These particular pair.

>> Just a couple years.

>> GARY DORF: Hearing aids today, what you are wearing is good technology. Hearing aids talk to each other. They use Bluetooth. Benefit of having a good robust system, designed to minimize the noise and improve upon the speech.

Hearing aids do that differently. I know my competitors' products. They are very good. The OPN will change that – seen people come in with previous hearing aids and saying, "This is doing something the other hearing aids didn't." That specific environment, I can't pick out an environment and say, yes. But my recommendation, anybody interested in upgrading, most should allow you to try something for 45 days.

I don't want to mislead anybody, just telling you the technology we are seeing now is different.

I have till 11:30, that okay?

>> JENN: Take a break about now. Then come back. At this point since we have other things to do.

>> MITZI: I have the new OPN. With the communication you are saying it's sort of background sound this side, they are both going to go use?

>> GARY DORF: No. You want me to answer that?

>> MITZI: I've been going dancing a lot. There is music in the background, people on either side of me trying to tell me something. There is no speech discrimination there.

>> GARY DORF: The first part is that do both – designed where the noise is the greatest that hearing aid will eliminate that noise. It's not eliminating noise. Understand that. Nothing out there except what the military has can eliminate noise. We can't have what the military has, otherwise your hearing aid would be this large.

Supposed to minimize and speech on the other side is more dominant. If you are in a room, dancing and music, that's a lot of distraction. My question to you is –

you don't need to answer this – evaluate how you understand speech opposed to what you did with your previous hearing aid.

Take 15 minutes. I'll clean everything up afterwards.

(BREAK)

>> TIM: I know it's cold in here. So we will talk with the library. Can you hear me?

>> DANNY: I can.

Danny can hear me. We will talk to the library after the meeting about controlling the temperature.

>> DIANE: Danny put on his sweater, you know it's cold.

>> GARY DORF: I apologize, I get very passionate about what I talk about. And I have about five minutes or so to answer questions. A bunch of you came up during the break, which is great, I appreciate it.

Are there any other questions. Danny?

>> DANNY: Is it TIN-IT-us or tin-I-tis?

>> GARY DORF: They are both accepted. Both are acceptable.

>> My question is, I guess, two-fold. I wear both implant and hearing aid. The implant I am able to adjust sensitivity, I don't know if that's connected with what you are talking about with the new hearing aid. I don't know if it's specific to my age or being a hybrid wearer of different technology. I find there is so much cognitive energy going into trying to hear just one-on-one, and the train leaves the station quickly if my consonant comprehension is wrong. I am making up a story about a hike, and husband talking about going on a bike ride. Curious about incorporating a new level, something that could be a stressed and allows people not to go crazy having to deal with all that.

>> GARY DORF: Really good question. Focus on the first part, the cochlear implant in terms of how it's analyzing. Basically it does have very good technology. I don't know how old your implant is. Obviously things are changing. A lot of times offer multiple programs so if you are in a noisy environment you can turn over to the acoustic program. Not sure if that's what you are talking about. The cochlear implants do a good job, using the (inaudible) of that particular company.

In terms of the focus of what you are saying it's a really important comment you make, and that is the ability to stay focused in a conversation. And when I talk about cognitive load, which I didn't talk much about. Anybody hearing-impaired, especially with your situation, hybrid setup, your cognitive load is very heavy. After three or four hours in a very stressful environment, I understand how you want to get out of that environment. Not here to tell you any technology will dramatically improve that cognitive load. We have done some studies. I can send you white papers that talk about that.

The OPN caused reduction of that cognitive load by about 20% from our older one.

The conversation you are telling me about, that can be a very difficult cognitive concern trying to figure out did he say hike or bike. And by the time you figure it out, he's two or three sentences beyond you, and we are all trying to catch up to that

conversation. That's a heavy cognitive load and the effort you have to put in on a daily basis is a tough situation.

If you write down your email address, I will be happy to send you the link to the white paper.

>> We have members or people wanted to come today and couldn't be here.

Are you willing to share your PowerPoint?

>> GARY DORF: I have to go through Oticon to do that.

>> Maybe some of the white papers, and we also send out the transcript.

>> GARY DORF: Can I send the white paper to one central location?

>> JENN: Yes. If you can send us the white paper and we can put it on our Yahoo Group.

And if you are new, you should sign up for the Yahoo Group. We do publish the actual transcript of this meeting. While I think probably it would make more sense for them to read the transcript than to look at a PowerPoint, because – I mean, I think if what Gary is saying he will have problems, I think probably having a transcript will be sufficient.

>> GARY DORF: So the big problem is corporate. I get punished because I usually don't do what corporate wants me to do. But sending the PowerPoint out is a real no-no. They don't know where it will wind up, with due respect.

>> GEORGIA: This is not a question, a comment about having selective hearing. I know when I am with a group of people, family or whatever, someone is talking to me, but I can tell they are listening to another conversation. I can tell. I am very good at that. I can read people. It's not so much as they are multitasking, but not really, paying more attention to that other conversation, which I think is kind of rude, not nice.

>> GARY DORF: I have nothing to say. I really want to thank you. I apologize for taking a bit more time, but this has been a blast. You can tell I feel very passionate about what I do.

If I can get an email, send it to Teri, Jennifer, your email or to Teri?

>> Send it to the steering committee. That's fine.

>> GARY DORF: Thank you.

>> JENN: Thank you for informative lecture. I personally learned a lot. And I think there is still so much to learn. And as a thank you -- we are trying to get a lay of the land -- so we will be sending you a nice gift certificate. Thank you for your time. I know it's a long drive. But I think what you shared with us was really phenomenal. So thank you.

>> GARY DORF: Good luck, everybody.

I promised my son I would meet him for lunch in Culver City.

>> JENN: We will have Gary's information and you can definitely email him or whatever.

Thank you. We appreciate it.

>> GARY DORF: Thank you. Bye-bye.

>> DANNY: Who is buying lunch? You or your son?

>> GARY DORF: (Inaudible) Thanks, guy.

>> JENN: We will get to steering committee elections now, because we need to fill, like I said, two seats. If you are interested, I ask you to raise your hand and give a quick, please, for the sake of brevity, a quick 30-60 second who-you-are and why you think you would be a good fit for the steering committee.

I don't know who is interested. A lot of people are new and a lot of people don't know who you are. We will need a vote if there are more than two people. Who is interested in being on the steering committee? Three.

We will have to do a physical vote because – there are three people. Now I think that will be – I don't want people to be like okay, so she voted for you and not. We want it to be a ballot so people can write down their choice and have it be a private choice. We will pass out some paper. So if you can write down your choices.

For the three candidates, please give a 30-to-60 second commercial about who you are and why you would be great on the steering committee.

Diane.

>> DIANE: I am Diane Gross. I've been part of this organization since the Stone Age, and I have been doing work for the steering committee kind of helping Tim out with the social media aspect of it. I've been posting on Facebook, and he's trying to show me the ropes for updating the web site. I have been doing email updates.

I think being on the steering committee will keep me better in tune to what is going on so we won't be trying to get these updates from two or three people before the updates. I feel I have a bit of history of the chapter and the organization to bring to the steering committee. Being fun to help out and work with everybody.

>> I want to thank her for all of work she's done.

>> JENN: Diane does do all of our social media on our website. So you already have a full load.

>> DIANE: What's more?

>> JENN: Teri.

>> TERI: I am Teri. While I am relatively new to this chapter, I was helping to run the Santa Monica chapter before we closed it. And as you see we have quite a few members coming to our new location. I am a lifelong volunteer with a lifelong hearing loss. I've already helped out. I attended the City of Orange meeting a couple months ago where Gary spoke.

I am so happy to be part of this organization, to be around people that get it. So much of our lives is around people who don't get it. I am happy to be part of this and take it to the next level. I have writing experience, social media. Thank you.

>> SHARON: Sharon Swerdlow. Probably the least qualified person for this job, but I did volunteer because I didn't know there would be enough people to fill it. I have been hearing-impaired for almost half my life. I only discovered you people three months ago. And I am so happy to have discovered you people.

Area of concern, question, thrilled to be around people ha get it, especially – people closest to me, not often as mindful and often forgetful despite good intentions.

I applaud you for being such good support for your spouse. It's wonderful for those of us too.

Seems like the two of you really do have a much longer tenure here and understanding of how the group works, so I am happy to do something else, whether part of a committee or ad hoc kind of work. I want to be involved and sort of jump in and get my feet wet, be able to give back some and see this organization able to grow. And I applaud Jenn for finding this space that is central.

>> JENN: Anybody else who was interested?

So to make life easier, because – and also because you are new, and we have a lot of work for you – Georgia –

>> SHARON: We are not going to vote. We will do the two and I will do other stuff.

>> JENN: She's going to just help with the committee. We will vote.

Thank you to Sharon, for that.

We will put you to good use.

Because there are two people we still have to vote but do a yea or nay.

All in favor of Diane being part of the steering committee?

And all in favor of Teri being the other seat?

Are there any nays, by the way? Sorry.

So thank you.

So Teri and Diane are our new steering committee members.

[Applause]

Sharon is going to generously donate her time. And anybody, by the way, if you want to come early to a meeting, we always need help setting up. And we have many, many different things that we need help with.

Is there anything else?

>> DANNY: Also, anybody can come to a steering committee meeting and listen in and participate.

>> JENN: So if you want to come sit in on a steering committee meeting and listen to the secrets.

Nine times out of ten we have a steering committee meeting after we meet here. They do go for an hour or two hours, depending on what needs to be done.

We don't have our normal kitty because Heather has it. She forgot to give it to me...

The way we stay alive as a chapter and be able to provide services and food and all the fun things that we do for this fun party chapter, is that we – these meetings are free. However, we always accept a donation. If you felt like this meeting was worth one or two dollars or more – we always welcome "or more," donate to keep our chapter going, alive, whatever we do.

Do not feel obligated if you can't. But if you do feel this was worth your time and energy to come down here, then we appreciate that.

Questions?

>> Comment. I would like to publicly acknowledge and thank the captioning.

>> JANE: You're welcome.

>> JENN: Thank you, you do a phenomenal job.

She comes early. Helps me set up the projector today.

Jane, thank you a thousand times.

>> JANE: You are welcome.

>> JENN: I believe you can make a check to HAAA Los Angeles chapter.

>> TIM: (Inaudible).

>> JENN: We will have to get back to you.

Anybody else have any –

Diane, you want to do a quickie before we –

>> DIANE: We have an annual fund-raiser coming up on June 6 – the Annual Walk4Hearing is coming up on June 6 –

>> 9th.

>> DIANE: Cognitive issues lately.

The Walk4Hearing is the annual fund-raiser to raise funds for both the national organization and for the chapter. I think it's a 60/40 split. We need people to sign up to participate in the walk. It will be in Long Beach, which I know is a drive. But we will try to organize car pools to get people there. We don't have a lot of time. So what I will do is, if you want to register. I will put up a kind of "walk you through" the web site. If you need help, I can sign you up myself and give you the information you need. but the main purpose of this walk is to raise money. So talk to your family, your friends. We will have more about that next month.

The kick-off luncheon is the same day as our meeting. I don't think I will be there. We will be sending information shortly.

>> JENN: Thank you, Diane. Yeah, the Walk4Hearing is our annual fund-raiser and a way to raise money for our chapter and national.

>> DIANE: And awareness for the organization.

>> TIM: Just a couple quick things. As a reminder, again, the convention is coming up. So if you are interested in going (laughter).

The convention is – no pictures.

Keep in mind, the deadline is the 31st. If you are interested in going, we – those who are now part of the steering committee. We do have registration forms. If you are interested, talk to us afterwards. Deadline is 31st for early bird discount. Rooms are filling up now too. It's going to be at the Hyatt. Those rooms are filling up. HAAA has a discount code for you.

Heads-up for you guys, every year we have our Memorial Day kind of holiday party. Last year I think we had it at Lacy Park. There is some planning involved. We are trying to get suggestions where we might want to have this year's party. We can go to Lacy Park or at someone's home. We don't have to – please think about if you are thinking about hosting or ideas about where to have the party. Start thinking about ideas and let the steering committee know, yahoo group, whatever, any ideas. I think by April we want to have this finalized.

Our next meeting is not March 24. It's actually in April. I think –

>> JENN: It's April 21st.

>> TIM: Come to this one because going to go kind of a fun hearing -- we will have the hearing dog meeting. Trained to help those who need assistance with their hearing. And our president Heather had one for 10 years. They will come at 10:00. We will start promptly. Should be a lot of fun. I saw the presentation a couple years ago at the convention. They will have a dog here. It will be an interesting meeting, how hearing dogs can help the hard-of-hearing.

I think that's about it, unless... I think the meeting is the 28th by the way.

>> JENN: It's the 28th.

>> TIM: Put it on your calendar. If you are not here...

Any other questions?

Probably more from Diane, she's our Facebook -- we have a Facebook page. If you haven't joined yet, please do. You can find us and request I think to join the group, and Diane and myself will review and approve. But it is a group just for our chapter. And it's got a lot of good information.

We also have the Yahoo Group. So if you are not part of that yet, go to the HLAA Los Angeles Chapter Yahoo Group. You can find a link on our website. You can request to join that.

Anything else you can think of?

I think that's it. Any questions? No? I think everybody's ready for lunch.

>> JENN: Thanks everyone. Have a great Saturday and rest of your weekend.