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Protect Your Hearing Before It's Too Late

For musicians, engineers, and producers, their ears are their most vital tool – so we must stop ignoring the damage being done to them

BY IAN COHEN



Turn the volume to 11! Originally from the classic rock mockumentary *This is Spinal Tap*, this cliché of all clichés sums up the entire situation with regard to musicians, and their generally uncompromising love for loud music. While practicing, performing, or producing, it's difficult to resist getting louder – after all, you're wailing. But to stay working and have longevity in the music business, musicians, engineers, and producers need to consider the positive effects of treating their ears with some mercy during the journey.

Listen to most music industry luminaries, and you'll hear (no pun intended) some pretty enlightening stories on the topic.

LESSONS LEARNED THE HARD WAY

PERSPECTIVE – STEVE FERRONE

Just ask Steve Ferrone, the Grammy Award-winning drummer with credits that include 24-years touring and recording with Tom Petty and the Heartbreakers, as well as working with George Harrison, Chaka Khan, Eric Clapton, Anita Baker, and many others. Ferrone reveals that he has suffered some hearing loss, and it was a gradual decline.

“Ear damage, it’s just something that we have, you know?” says Ferrone. “You don’t really notice it coming on. It just happened over the years for me.”

He described an event that occurred while touring with Tom Petty and The Heartbreakers: “We were playing in Boston, and in the heat of the battle I used one in-ear monitor headset, with a click, and that was about it. And, I’m sitting up there and playing, and all of a sudden, I hear this noise in my ear,” Ferrone remembers. “I could still hear the click and I’m like, ‘Oh, there’s something wrong with my headset. And, I’m always hesitant to turn around and tell my roadie, ‘Hey, there’s something wrong,’ because he starts unplugging stuff, and he unplugs everything... So, I just thought, you know, I’ll just live with it. And when we finished the song, I said, ‘Hey, there’s something wrong with my headset, it’s making a horrible noise.’ But then I pulled my headset out, and the noise was still there!”

Ferrone continues: “I went over to Massachusetts General Hospital and I came out of testing and the guy said, ‘Well, you’ve lost like 40 percent of your lows off the bottom end, and 30 percent of the highs.’ And what that meant for me was, I know I have problems. So, for a descriptive, medical term for what’s going on: my hearing is screwed!”

Luckily Ferrone says the noise did go away after some time, but musicians often choose to practice, rehearse, and perform at volumes

that could cause injury to their ears. This could alter their careers and affect their health. It may also cause difficulty in their day-to-day ability to hear family, friends, and spoken word. Thankfully, the injury can be averted.

PERSPECTIVE – DAVE KOZ

Dave Koz is an 11-time Billboard number-one and platinum-selling contemporary jazz saxophonist and humanitarian. With me, he shares his stance on the need to develop logical steps to protect hearing in order to prepare for an extended career in music.

“For any musician starting out now, your ears are your life. If you don’t have your hearing, you’ve got nothing, you can’t play music,” says Koz. “And so, starting good practices and good habits early in life will help keep your hearing at optimal levels, you hope.”

Koz likens the process of being a professional musician to being a professional athlete – you have to be mindful of your body. For professional musicians, the ears are the most crucial part of a critical system that allows them to perform at the highest level.

“You only have two ears, and you can’t trade them in for new models. So, it’s like every other part of your body, you have to really focus on it,” says Koz. “I think, sometimes, we are kind of taking our bodies for granted, but as musicians we have to approach our bodies not unlike the way professional athletes would approach their bodies.”

He adds: “All the mechanisms of your body are working, and helping you achieve what it is that you want to achieve as a musician, as a recording artist, as a touring musician.”

Koz recently watched and recommended a movie for musicians to watch titled *Sound of Metal*. The Oscar-nominated movie starring Riz Ahmed was released in 2019 and tells the story of a heavy metal drummer who loses his hearing. It does a good job of addressing the potential for rapid hearing loss caused by overexposure, and does so in a powerful and thought-provoking manner.

“It’s one of those movies that for any musician to watch, it’s like, ‘This could actually happen to us too!’ So, that freaked me out,” he reveals. “I think if there was anything else that could kind of put the fear of God in all of us about our ears, it was that movie.”

Koz says one of the hardest things he’s had to witness was a close friend and musical collaborator suffer significant hearing loss.

“The best learning for me has been watching him, and how he’s been dealing with it,” he says. “And when you see somebody that you know and love lose a significant part of their hearing, and what it does to their lives, it’s a wake-up call!”

PERSPECTIVE – OLA KVERNBERG

Ola Kvernberg is a Spellemannprisen Award-winning Norwegian jazz violinist and composer. He provides some suggestions for stage performers to consider.

“Take note from the experiences that make your ears ring and avoid them as much as you can. Approach any stage situation pragmatically, avoid cymbals and other high-pitched instruments, especially amplified, directly to the ear,” Kvernberg advises. “Also, work with angles — it can be as simple as rotating your position on stage with just a few degrees.”

Kvernberg also reveals that, “After my first four years of intense touring, my reintroduction to silence made me realize I had tinnitus.”

Musicians and performers are not the only ones that have to consider their level of exposure. Recording engineers, mixers, and producers must also be aware.

PERSPECTIVE – KEN CAILLAT

Ken Caillat is a Grammy Award-winning recording engineer and producer for Fleetwood Mac, David Becker, Taj Mahal, Lionel Ritchie, and many others. He gives a closeup view into his own tinnitus symptoms, and into the symptoms of others he works with. He also notes that some exposure couldn’t be prevented, due to perceptions about having the music at quieter levels.

PHOTO: IAN COHEN



STEVE FERRONE

PHOTO: COLIN PECK



DAVE KOZ

PHOTO: ANDRE LOYNING



OLA KVERNBERG

"I don't have much tonight, but every engineer I know has some tinnitus or some hearing loss, every musician," Caillat tells me. "So, in one of my ears, for some reason, the hearing is worse. But when I was a kid, and the volumes that the rockers wanted to be; they wanted it to be loud. So, you weren't a musician if you didn't have it loud."

Caillat has some additional advice in terms of a way to monitor volume levels from a mobile phone, even if it isn't considered fashionable.

"Turn it down. You know, most phones have a sound pressure level (SPL) app – try to keep things down. . . . No matter how cool or uncool it may seem, try to keep levels below 100dB, and preferably 90dB"

Caillat shares a story of an experience he had being exposed to very loud guitar while recording Lindsey Buckingham from Fleetwood Mac.

"I had one situation where Lindsey was playing guitar, and he was plugged in and I said 'don't play for a second, because I've got to change the mic.' I went out of the control room to where he was, and I had my head and my left ear within two feet of the guitar cabinet, and he hits the chord. It came out of nowhere!"

Caillat discussed how fellow engineers, such as the late Al Schmitt (Henry Mancini, Steely Dan, Quincy Jones, etc.) use earplugs as often as possible, so that they can continue to have a career and work for as long as possible.

"The best engineers I know, like Al Schmitt, wanted to be working. You don't necessarily make a lot of money in the music business, especially when you get older," explains Caillat. "So, he wanted to work until he was in his eighties and nineties. And so, he had earplugs for anything. He'd go to a concert and he'd put in earplugs."

PERSPECTIVE – RUSS LONG

Equally comfortable in the recording studio and the concert venue, Russ Long has engineered and mixed albums by Wilco, David Liebman, Dolly Parton, and toured with Amy Grant, Vince Gill, Paul Rogers, and many others. Long said that no matter how much equip-

ment you possess, your ears are the priority for gaining and maintaining work in the industry.

"I don't care how many mics you own, what kind of monitors are in your studio, or what your gear collection looks like, an engineer's most important commodity is their ears," Long stresses.

Long explains that he saw some red flags when he heard about Pete Townshend's debilitating hearing loss, and that Townshend's story helped influence some of his audio engineering practices.

"Thankfully I read an interview with Pete Townshend early in my career that made me aware of the dangers of hearing loss," he explains. "So, I've always been conscious of not monitoring too loud, and taking regular breaks in the studio, and keeping the volume under control when I'm mixing live."

Long says that he brings earplugs wherever he goes, and he advised that engineers and musicians need to consider this as well.

"I always carry a pair of earplugs with me, and I use them whenever I go to a concert, or if in a situation where I'm exposed to loud music," he says. "When talking to young engineers and musicians, I can't emphasize enough the importance of getting a good pair of earplugs that protect your hearing, while still allowing you to enjoy the music."

EASY DOES IT

There are many ways to help reduce the exposure. The obvious way is to turn it down. Looking at additional tools for prevention, there are apps, such as the NIOSH Sound Level Meter app and others, that can be used discreetly during practice, rehearsal, and live performance.

As Long noted, earplugs are also beneficial. There are a wide variety of types and styles of "musician's" earplugs available. Some are passive, and some have electronics. Some are designed to work out-of-the-box, while others are custom molded. And some provide interchangeable or adjustable filters for controlling the amount of attenuation.

Westone, Earos, Earasers, Vibes, Decibullz, and even Fender are just some of the companies making hi-fi earplugs for musicians and audio professionals. Minuendo is another such manufacturer that makes earplugs for musicians (Ed. Disclosure: Ian Cohen has done contract PR work for Minuendo). Its chief product officer, Tom Trones, provided some insights related to earplugs, and some ideas on how and why to use them.

"I think the first key is to find some kind of earplugs that work for you. They should be comfortable, practical, and not ruin your listening experience," Trones says. "Also, I think it's really important that people be more aware of when to protect themselves. Even moderate levels can be risky if the exposure is over a prolonged period of time."

When asked about potential treatments on the horizon for tinnitus, Trones says that there isn't much help once a musician suffers hearing damage, so being proactive is essential. "Permanent hearing loss is so far irreversible," adds Trones. However, he cites a study published March 7, 2018, in the Journal of Experimental Medicine titled "New drugs could help prevent hearing loss," which point out that there is research being done that looks at ways to treat or prevent noise-induced hearing loss.

"There are some experimental compounds being considered by researchers that could eventually help treat noise-induced hearing loss," says Trones. He also reveals some information on technology Minuendo is working on related to earplugs. "We are currently developing electronic earplugs that measure the actual exposure to the ear, and then warn if the levels over time might be dangerous."

In terms of any other ways to increase consciousness in real-time, Trones says: "Another way to create more awareness could be to have a SoundEar noise monitor system installed – functioning as sound level meters in studios, rehearsal spaces, and concert arenas. When they light up red, it will give you a reminder to wear protection."

HEARING IS BELIEVING

Sensaphonics Hearing Wellness is a Chicago-based full-service hearing clinic for musicians. It also offers products, such as custom in-ear monitors and custom molded earplugs. Its president, Michael Santucci, AuD, provided some hope that opinions of earplugs have shifted into a more favourable light among musicians and concertgoers.

"I started in 1987, and it was laughed at to wear your earplugs. Now, I sit backstage with MusiCares at Lollapalooza and Riot Fest and we give away free earplugs, and literally there's 400 people in line to get them," says Dr. Santucci. "And these are people and artists, right? So, it's really changed. People are more attuned to it."



KEN CAILLAT



RUSS LONG



Dr. Santucci says that for any musicians who are reluctant to wear hearing protection, he recommends that they at least get tested yearly.

"If they don't want to wear hearing protection, they should at least do a baseline hearing test, and get an annual hearing check and monitor their hearing," he says. "Getting your hearing checked on a regular basis is really the basis of any hearing loss prevention program. It really can extend their career, and that's what it's all about."

Dr. Santucci also discussed a Vanderbilt University study that showed that in-ear monitor use doesn't automatically equate to lower volume.

"We did a study at Vanderbilt comparing getting your in-ear monitor levels to floor monitor levels. We wanted to see how much people turned down the in-ear monitor levels," explains Dr. Santucci. "We did 45 trials. Everybody turned them exactly the same, not even one dB between all the trials... and if you've been playing guitar at 100dB, you put on in-ears and guess what? You turn it to 100dB."

Dr. Santucci also points out that, although loud sound is the primary cause of tinnitus and hearing loss, it may not be the only cause.

"You can't assume it's about sounds," he states. "So yes, the leading cause in this country is loud sound exposure, but you could have mechanical issues in your jaw and neck."

TAKE FIVE

There are many resources to tap for the latest information, technology, trends, and education.

The American Academy of Audiology and Canadian Hearing Services are two such resources – they have links to resources, tools, fact sheets, articles, and a searchable database to find practitioners.

Tricia Lynn Scaglione, AuD, is an assistant

professor of otolaryngology at the University of Miami. She is also director of the Tinnitus and Sound Sensitivities Clinic, and associate director of Clinical Education in Audiology for the UM Department of Otolaryngology. During a presentation for the American Academy of Audiology, Dr. Scaglione discussed a study that she conducted, together with Dr. Aurora Occa, Dr. Susan E. Morgan, Dr. Brianna Kuzbyt, and Dr. Richard J. Bookman. The study was published in *The Journal of Communication in Healthcare*, and titled "What would an evidence-based tinnitus patient education program look like? Findings from a Scoping Review".

Dr. Scaglione explains that the study aimed to evaluate the impact of tinnitus education, possible methods for delivering the information to patients, and to provide a guideline for teaching patients coping mechanisms for tinnitus.

"The whole purpose of the study was to develop guidelines that audiologists, ENTs, and other physicians can use, to provide tinnitus education in their practice," says Dr. Scaglione. "There wasn't an agreement of the delivery model that should be used for tinnitus education. It ranged from one-on-one to group models, internet-delivered, and even pamphlets. However, there was a general agreement about the information that should be portrayed to patients or delivered, and this included teaching patients that tinnitus management involves coping with tinnitus, not curing tinnitus."

Another resource is the In-Ear Monitor International Trade Organization (IEMITO). Its executive director, Mike Dias, described the goals of the IEMITO. "The mission of the IEMITO is to promote the uses and benefits of in-ear monitors," states Dias. "We specialize in providing information regarding earphones

and in-ear monitors that are generating sound, not passively blocking sound."

That said, when asked, Dias describes different settings when a musician may opt for musicians' earplugs, and mentioned some characteristics. "You see people going into physical environments like clubs or concerts, or anywhere where it could be potentially dangerous, and not doing anything about it," he says. "All musicians should have a custom-fit musician's earplug with a linear filter. And even if it's not a custom fit, there are some companies who are making wonderful products."

In terms of potential hearing health conservation benefits related to using in-ear monitors versus wedges while performing at a concert, Dias states: "If properly used, you can choose to listen at a lower SPL than you would be on a loud stage trying to catch a feed off of your wedge."

IT'S ALL ABOUT THE LAST MAN STANDING

In closing, Ken Caillat shares some wisdom about bucking perceptions, so that you can work as long as possible, and so you can outlast anyone in the business.

"Don't let some 20-year-old bopper make fun of you, because when they get old someday, you know, you're maybe pushing them around in a wheelchair," says Caillat. "It's all about the last man standing."

This article was first published in the U.S. by JAZZed Magazine and is shared with permission to Professional Sound.

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