

Do I Need Hearing Protection at a Music Festival?

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WHEN SOUNDCHECK APPLIES TO YOU

Your favorite musician is headlining, and you are determined to make the most of it.

As you approach the stage, you tell yourself you can handle the heat and claustrophobia for *this* moment. The lights, heart-thumping music and nearby revelers all add to the magic of the moment. The last thing on your mind is hearing protection. Those ugly, foam earplugs never fit right no matter how much you jam them into your ear. And on the off chance they do work, they dampen your listening experience as much as it dampens the sound. You can't even hear your friend yelling in your ear. Forget the earplugs you say to yourself. I want to plug into the experience instead! You only live once, right?

True. But "once" can cause some drastic changes in your hearing.

Have you ever noticed ringing in your ears after a concert? Did everything sound muffled for a few hours or days afterwards? You may have experienced *tinnitus* (ringing) or a *temporary threshold shift* due to noise exposure (7). Noise exposure also can lead to permanent hearing damage, called *Noise Induced Hearing Loss* (NIHL) (7).

Researchers found that noise levels at a European music festival averaged 98 dBA (decibels, A weighted) and ranged from 87.3 - 103.8 dBA (4). According to the American Speech Hearing Association (ASHA):

"Sounds over 85 dBA can damage your hearing faster. The safe listening time is cut in half for every 3-dB rise in noise levels over 85 dBA. For example, you can listen to sounds at 85 dBA for up to 8 hours. If the sound goes up to 88 dBA, it is safe to listen to those same sounds for 4 hours. And if the sound goes up to 91 dBA, your safe listening time is down to 2 hours." (1)

To put that into context, 90 decibels is about equivalent to the sound of a blender at 3 feet and 100 decibels is equivalent to the sound of a Boeing 747 taking off 2 miles away (3). While your blender may not cause hearing loss after a one-time use, extended exposure to 90 decibels for 8 hours at a music festival could cause NIHL (1).

Loud noise can also compromise your festival experience through more than just your hearing. According to ASHA:

"Loud noise does not just hurt your hearing. It can cause other problems that you may not think of as being noise related.

Noise can make you more tired and cranky. Loud noise can cause other health problems, like:

- high blood pressure
- faster heart rate
- upset stomach

- problems sleeping, even after the noise stops...” (1)

Before I tell you if hearing protection exists that doesn't compromise the music listening experience (spoiler, it does!), let's address a question that might be on your mind. Do earplugs even work?

THE EAR-B-Cs OF HEARING PROTECTION

All non-custom fitting ear plugs must be assigned a *Noise Reduction Rating (NRR)*, which was developed by the U.S. Environmental Protection Agency (6). If the NRR is labeled at 20 dB, when properly fitted and sealed into the ear canal, it will decrease a potentially hazardous 90 dB noise exposure to 70 dB. So, yes, earplugs work! Mostly...

Earplugs can be hard to create a proper seal if not inserted correctly, meaning many people are not actually getting 20 dB of protection. The CDC recommends using the roll-pull-hold technique for soft foam earplugs (2), summarized below:

1. ROLL the foam plug into a snake
2. PULL the top of your ear up and back to straighten your ear canal (Yep, your ear canal isn't straight!)
3. HOLD the earplug in with your finger while it expands.
4. CHECK if you have a good seal. Visually, the earplug should NOT stick out past your tragus (that little flap that you can push on to cover your ear canal). When you cup your hands over your ear tightly, the sounds should not be much more muffled with your hands in place. If they are, you may not have a proper seal.

I hear you; it's a hassle to go through all that and have the music you paid to listen to muffled on top of all of it. So, let me introduce you to...

THE HIGH FIDELITY EARPLUG

These awesome ear plugs will not only save your hearing, but also save your festival experience, your wallet, and the environment. How to insert them properly depends on the earplug manufacturer directions, as there are a variety of designs, but I can guarantee you there will be no rolling.

THE SCIENCEY STUFF

Typical hearing protection has too much attenuation, meaning that it alters the frequency response (5). This alteration makes music and speech sound muddled while using foam earplugs.

High fidelity earplugs on the other hand are considered flat attenuation earplugs. They preserve the sound as it is normally heard, just at a lower volume. (5).

THE MONEY STUFF

Custom molded high fidelity earplugs can be costly, but non-custom fitted earplugs can save you money and still provide solid protection.

THE ENVIRONMENTAL STUFF

Foam earplugs are a single use, disposable product. Convenient? Yes. Environmentally friendly? Not so much.

High fidelity earplugs are made to be reusable. Some even come with their own keychain container, so you can carry them on the go. Hearing the music properly? Check. Protecting your ears? Yup. Saving the environment? Heck yes.

Plus, they are not just useful at music festivals and concerts, but anywhere you are in a loud environment for a long period of time. For example, you may consider using them at bars and movie theaters.

THE FASHION STUFF

Look. I know music festivals could be the peak of your fashion daring, and foam earplugs just aren't going to cut it. The good news is that high fidelity earplugs come in a variety of styles, including discrete, transparent earplugs, and even those designed purposefully with fashion in mind.

SO, DO I REALLY NEED HEARING PROTECTION?

Music festivals can be a total sensory overload, both good and bad. Amidst the kettle corn and hotdogs, bumping music, and dance marathons, it's easy to get overwhelmed and fatigued. Treat yourself by taking steps to get the most out of your festival experience. Look out for those passionate festival goers who are pros at festival prep. Companies like Festival Flow Kit, for example, offers a host of other essential festival goodies in their individual and group festival packages including Loop earplugs. These sleek earplugs let you protect your hearing and still enjoy the music as it's meant to be heard - and you look good wearing them too.

Staying hydrated, wearing sunscreen, and using high fidelity earplugs are just a few ways to prevent burnout and keep your festival flow strong this season. Now go out and make the most of it!

Authors note: This article does not constitute medical advice. If you have any concerns regarding your hearing or health, please consult your doctor.

CITATIONS

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