

## Time for Your Vaccination Against Tinnitus

About twenty years ago my sister unintentionally gave me tinnitus. Also known as ringing in the ears, it's not a condition that anyone considers communicable except me.

I remember minding my own business one day when my sister Cindy, two years older than me, mentioned that she had tinnitus and asked if I did as well. After some discussion back and forth, it was determined that I did indeed have a moderate case but was unaware of it until then. I just assumed it was a normal component of my hearing.

Of course, ever since then it's been bugging the hell out of me, especially since there's no real cure. As a musician I probably rely on my hearing more than most, so I began wondering about other possible impairments.

According to a number of sources, a healthy young human ear should be able to hear frequencies in the range from 20 hertz (Hz) to 20,000 Hz. In an effort to determine my own range, I stumbled on a cool site at [onlinetonegenerator.com](http://onlinetonegenerator.com). Its Hearing Test option plays an ascending tone which spans that entire range.

I was more than a little distressed to find that my hearing drops out completely just above 10,000 Hz, although it turns out that's very close to normal for someone my age (63). It's some small comfort that very few sounds of consequence occupy that spectrum, as no musical instrument except the pipe organ has a range (excluding harmonics) that exceeds a piano's highest key at 4,186 Hz. Google up "instrument frequency range" for a fascinating chart.

Before deciding your hearing is impaired by listening to the above Hearing Test, you should make sure whatever speakers you're using are capable of generating the entire range. That site also has a Subwoofer Testing tab that generates a descending tone beginning at 150 Hz. It turns out my Bose desktop computer speakers drop out at about 50 Hz. Either that or my hearing does, I can't be sure which.

That kind of uncertainty reminds me of a scene in the Marx Brothers movie "A Day at the Races" in which Groucho is a veterinarian pretending to be an M.D.

and he's measuring an unconscious man's pulse. "Either this man is dead or my watch has stopped," says Groucho.

Other fun options at [onlinetonegenerator.com](http://onlinetonegenerator.com) are a white noise generator, an instrument tuner, a time stretcher (speeds up or slows down a music file without altering pitch), a pitch shifter (changes pitch of a music file without altering tempo) and a voice generator that speaks any words you type into the text box. It's particularly good with tongue-twisters.

Up to this point I've been talking only about sound pitches - not volume, which is measured in decibels (dB). Now that I'm paranoid about my hearing - keeping my other paranoias company - two things I don't leave home without any more are earplugs and my cell phone with the free SPL (Sound Pressure Level) app that measures decibels.

LuAnn and I attend a dozen or more live performances of one kind or another every year, and almost all of them - I guarantee - are damaging our hearing. According to my phone app, it's common for peak concert volumes to exceed 100 dB - even at a fair distance from the stage - which is roughly equal to a jet flyover at 1000 feet. Occasionally I'll forget my earplugs and end up jamming Kleenex or toilet paper in my ear canals, something no audiologist recommends.

I've even started wearing ear protection during jazz band practices, during which the damn trumpets in the row behind me happily blast away with little consideration about what it's like for those of us on the business end of those instruments. Hawkeye home football games can be just as loud.

Check out [onlinetonegenerator.com](http://onlinetonegenerator.com) for yourself, but keep this in mind; any hearing-loss self-diagnosis is risky. This is why audiologists have jobs.

*Writers Group member Dave Parsons notes that according to Wikipedia, one of the loudest volumes ever measured at a rock concert was in 2009 when the band Kiss achieved an SPL of 136 dB during a live performance.*