Q. When I sit quietly, I notice a ringing in my ears. Is there any way to make it stop?

ASK THE Wellness DOCTOR

A. What you've described is tinnitus *(pronounced ti-NIGHT-us, or TIN-i-tus)* – any internal sound you hear that has no outside source. Most people describe their tinnitus as a ringing sound. Others hear roaring, hissing, screeching, buzzing, clicking, pulsing, chirping, or multiple sounds combined.

Tinnitus is a symptom of something that has gone wrong somewhere in the body. If you have constant tinnitus, see your doctor to rule out a medical cause. Some antibiotics, antidepressants, chemotherapy drugs, and even aspirin (in very high doses) can damage your ears. Tinnitus is a potential side effect of almost 200 prescription and over-the-counter drugs – taken singly or in combination. Other causes of tinnitus include impacted ear wax, a thyroid disorder, an ear infection, and in rare cases a benign tumor on the auditory nerve. Hearing loss might also be the cause. It's best to see a health practitioner who specializes in tinnitus.

The most common known cause of tinnitus (and hearing loss) is very loud noise exposure – either a one-time blast of sound or repeated exposure to loud noise. You might have noticed that your ears ring loudly after you use power tools or come home from a concert.

Sound is measured in units called decibels. Decibel levels begin at zero, which is the weakest sound our ears can hear. For every increase of 10 decibels, a sound is 10 times more intense.

A person who is exposed to 85 decibels or higher for a prolonged period of time is at real risk for hearing loss and tinnitus. Regular exposure to sound over 100 decibels, such as listening to MP3/iPod® music, can result in lifelong hearing damage.

A noise is too loud when:

- You have to raise your voice to be heard by someone nearby.
- It hurts your ears.
- You develop a buzzing or ringing sound in your ears, even temporarily.
- You don't hear as well as you normally do until several hours after you get away from the noise.

When powerful sound waves damage your inner ear "hair cells," those damaged cells send disrupted signals to the part of the brain responsible for your hearing. Eventually, the brain starts to generate the signal of tinnitus all by itself. Sometimes hearing will improve and tinnitus will quiet down after a few days. But not always.

If you are around noises at this level, take protective action:

- Block the noise with earplugs or ear muffs, or both. If you are a skeet-shooter or a jet-ski enthusiast, for example, wear extra-heavy-duty hearing protection.
- Turn down the sound.
- Avoid the noise anyway you can.

Whether or not you have ringing in your ears, you should protect your hearing. It can keep your tinnitus from getting louder.

To find out more about protecting your ears, visit the Noisy Planet Web site at www.noisyplanet.nidcd.nih.gov and the American Tinnitus Association website at www.ata.org.

How Loud Is Too Loud?

Sound	Decibels (dB)
Normal breathing	10
Ticking watch, Rustling leaves	20
Quiet whisper	30
Refrigerator hum, Twittering birds	40
Quiet office	50
Normal conversation, Washing machine	60-70
Vacuum cleaner, Alarm clock (2 feet away)	70-80
City traffic	80-90 maximum weekly limit 40 hours
Lawnmower, Subway train, MP3/iPod® at ⅓ volume	90-100 only safe for 15 minutes at a time without ear protection; maximum weekly limit 5 hours
Snowmobile; Chain saw; Hair dryer; MP3/iPod® at ½ volume	100-110 maximum weekly limit 1.25 hours
Screaming child; Blaring stereo	110 maximum weekly limit 10 minutes
Thunderclap, fireworks (peak)	120 use extra-heavy-duty ear protection
Rock concert	120-150
Jackhammer, jet plane (100 feet away)	130

Source: National Institute on Deafness and Other Communication Disorders

Chasin, M. (2008, January 28). Musicians and the Prevention of Hearing Loss: An Introduction. Audiology Online. Available via the Articles Archive on http://www.audiologyonline.com

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