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## **Tinnitus – Is there a Caffeine Connection?**

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Coffee is a centuries-old aromatic breakfast institution – enjoyed by millions of people every day. I was one of them once. It used to be the first thing I thought of when I woke up in the morning. Today, its scent, no matter when I catch a whiff, takes me back to my childhood. When I was ten, my mother taught me to percolate fresh, ground coffee. And on Saturday mornings, that’s what I did. My sisters, parents, and I all drank it, half coffee/half milk back then, with lots of sugar. The memory is as sweet as the drink itself was.

By age 20, I was drinking six cups a day without giving it a second thought. I liked it strong, very strong, and definitely *not* decaffeinated. I was burning the candle at both ends back then, so I appreciated its caffeine zing.

My coffee reverie ended abruptly in my late twenties, when pregnant with my first child. It was replaced by trembling, severe headaches, and a craving I couldn’t appease. I toughed out the withdrawal, though. (A baby was a good motivator.) But it took me a year to stop trembling if I found myself within sniffing-range of its unmistakable aroma. More than two decades later, I still stay away from it, mostly out of a healthy respect for the power it has over me.

I’m only bringing this up because of you. Over the years, people have told us that their tinnitus increases when they consume caffeinated drinks. I don’t mean to pick on coffee. Colas and teas are culprits too. It’s just that, statistically, coffee is at the head of that pack – accounting for 75% of all caffeine consumed in the United States.

My curiosity about caffeine was piqued again after reading the recent results of our Tinnitus Today Readership Survey. According to the survey, 24% of you experience worse tinnitus when you consume caffeine. ATA members have been writing to us for years, in fact, about its unequivocal effect on their tinnitus. Has it been scientifically proven to worsen tinnitus? No. Does it happen? Yes.

### **What is Caffeine?**

Caffeine has been described as the world’s most popular drug. Some scientists call it addictive; others, habit-forming. It’s a well-known vasoconstrictor of blood flow in the brain, and a vasodilator in the muscles. Approximately 90% of the U.S. population (including children) consume this stimulant every day. More than half of all adults in the United States consume at least 300 mg of caffeine daily. That’s equal to three or more cups of coffee a day.

Chemically speaking, caffeine is an alkaloid, one of three *methylxanthine* chemicals. Caffeine naturally occurs in coffee beans, tea, cola nuts, and (in small quantities) cocoa beans. It is also added to many over-the-counter medications, such as Excedrin and Anacin. The other two alkaloids are theophylline (found in tea) and theobromine (found predominantly in cocoa). Theophylline is just as stimulating to the nervous system as caffeine. Theobromine, the main stimulant in chocolate, is milder.

### **What do the experts say?**

Well, there are no experts – on caffeine and tinnitus, anyway. But thousands of studies have looked at this drug over the years to see what overall effect it has on human health. In doses above 250 mg per day, scientists agree that caffeine constricts blood flow in the brain, and can cause irritability, jitters, insomnia, heart palpitations, stomach upset, and headaches. Researchers Field et al., found out something else about caffeine: Its consumption is so common, and its vasoconstriction effect on the brain so predictable, that its use probably confounds the results of MRIs and other brain scans. The researchers also saw abnormal cerebral blood flow in brain scans of people going through caffeine withdrawal.

Tinnitus health professionals have their own views on the matter. Audiologist Jill Meltzer, Au.D., states that while most of her patients haven't reported an association between caffeine and tinnitus, a small group of her patients are adamant about the connection. Another audiologist, Judy Abrahamson, Au.D., recommends that her tinnitus patients cut back on caffeine. "But," she says, "I haven't had anyone comply."

ENT physician Michael Seidman, M.D., states that caffeine is "a potent vasoconstrictor. So there is intuitive data to suggest that it's not particularly good for you." Some of his tinnitus patients who consumed excessive caffeine (up to 16 cups of coffee a day) *did* quit on his advice. But they became angry when their tinnitus didn't go down, and all they got for their trouble was a severe headache. Seidman notes that some of his other patients, who drank only one or two cups a day and then quit on his advice, reported a decrease or elimination of their tinnitus. Still, he reports, it's impossible to predict who will benefit from caffeine reduction and who will not.

We are clearly a culture that loves our coffee, our favorite soft drinks, our chocolate, our soothing teas. It's not my intent to be a killjoy. The fact is, these stimulants do not affect most people's tinnitus. If you're drinking coffee, or colas, or black tea, and you want to see if your tinnitus can be helped by cutting back or cutting it out, the best course of action is to do it slowly – reduce your intake by half a cup a day, a week at a time. And if you don't want to, you're talking to someone who totally understands.

### **Resources**

Bolton, S., Null, G. (1981) Caffeine: Psychological effects, use and abuse, *Orthomolecular Psychiatry*, 10(3), 2002-211.

Copeland, R. L., (2005) *CNS Stimulants*, Howard University, Available: [www.med.howard.edu/pharmacology/handouts/CNS%20Stimulants3.ppt](http://www.med.howard.edu/pharmacology/handouts/CNS%20Stimulants3.ppt)

Field, A.S., Laurienti, P.J., Yen, Y-F., Burdette, J.H., Moody, D.M. (2003, April) Dietary caffeine consumptions and withdrawal: Confounding variables in quantitative cerebral perfusion studies? *Radiology*, 227(1), 129-135.