

## Pain Relief: Music to Your Ears

Charles Masarsky, DC, FICC

*Author's Note:* Each patient education article in this column is written for your current and potential patients. It draws on the research documented in *Somatovisceral Aspects of Chiropractic: An Evidence-Based Approach*, co-edited by Marion Todres-Masarsky, DC. Whenever possible, I have updated the material from the textbook with more recent research findings.

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As full-time practitioners in the Northern Virginia suburbs of Washington, D.C., my partner and I have noticed an increased concern about hearing loss. The level of concern seems to increase each year as the population ages. The following article is designed to improve patient awareness of the hearing-spine connection in the context of what most new patients come to us for - pain relief. Please feel free to use this article on your bulletin board, for lay lectures and in your practice newsletter.

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Doctors of chiropractic have a long-established reputation for helping people suffering from neck pain, back pain, tension headache and other forms of musculoskeletal pain. However, pain is only one of the unpleasant sensory experiences that can be related to vertebral misalignment or restriction (subluxation). In fact, the first chiropractic patient, Harvey Lillard, had a previous upper back injury accompanied by long-term hearing loss.<sup>1</sup> The most immediate response to chiropractic adjustment was improved hearing.

Recently, an Australian chiropractic research team reported the case of a 43-year-old female teacher who suffered more than three years of constant neck pain, ear pain, ringing in the ears and hearing loss.<sup>2</sup> She had enrolled in signed-English courses to prepare for a career shift to teaching the deaf, since she was having growing difficulty handling a class of hearing students. A chiropractic examination revealed subluxation in her upper cervical spine. After one adjustment, she reported noticeable improvement in her symptoms. At six years of follow-up, her neck pain, ear pain and ringing in the ears are no longer constant and rarely severe. An audiologist has confirmed her improved hearing and she continues to teach a class of hearing students. Other instances indicating a spine-hearing relationship and the neurology behind this connection were summarized in a 2001 textbook.<sup>3</sup>

While obtaining pain relief through chiropractic care cannot be guaranteed to improve your hearing, more conventional pain relief strategies sometimes do the opposite. A number of popular over-the-counter painkillers are potentially *ototoxic* (poisonous to the ears): Aspirin, Advil, Aleve, Motrin and Naproxin fall in this category.<sup>4,5</sup> A number of prescription painkillers also might exhibit ototoxicity, including Clinoril and Feldene. The prescription muscle relaxant Q-Vel is ototoxic to some patients as well.

While ototoxicity does not noticeably affect everyone taking these painkillers, it is common enough to be discussed frequently in the biomedical literature. Symptoms can include ringing in one or

both ears, hearing loss in one or both ears and dizziness with or without nausea.

Although the ototoxic effects of these medications usually wear off once the drug is discontinued, they can combine with other factors, such as noise pollution.<sup>6</sup> For example, prolonged exposure to a noise level of 80 decibels (approximately the noise level of a busy urban street) can cause permanent hearing damage. However, when a person is taking ototoxic drugs, a milder noise level of only 68 decibels can cause permanent hearing damage. This combination of noise and ototoxic drugs is quite common. For instance, it is not at all unusual for people to take aspirin for a headache caused or aggravated by noise.

To sum up, painkilling drugs may provide temporary relief, but they can be ototoxic. Chiropractic adjustments are nontoxic and often are effective at providing both temporary and lasting pain relief. In fact, an adjustment may help to clear your hearing circuitry - music to your ears!

### *References*

1. Palmer DD. *The Science, Art and Philosophy of Chiropractic*. Portland, Ore.: Portland Printing House, 1910:137.
2. Cowin R, Bryner P. Hearing loss, otalgia, and neck pain. *Chiropractic Journal of Australia*, 2002;32(4):19.
3. Masarsky CS, Todres-Masarsky M. Subluxation and the Special Senses. In: Masarsky CS, Todres-Masarsky M, Eds. *Somatovisceral Aspects of Chiropractic: An Evidence-Based Approach*. New York: Churchill Livingstone, 2001.
4. Epstein S. What you should know about ototoxic medications. *SHHH Journal*, Sept/Oct. 1995. Available at: [www.ifhoh.org/papers/epstein.htm](http://www.ifhoh.org/papers/epstein.htm).
5. Tuper G, Ahmad N, Seidman M. Mechanisms of ototoxicity. *Perspectives on Hearing and Hearing Disorders: Research and Diagnostics*, Sept. 2005;9(1):2-10.
6. Falk SA. Combined effects of noise and ototoxic drugs. *Environmental Health Perspectives*, Oct. 1972;2:5-22.

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