

Is There Tinnitus Relief through Herbal Treatments?



Richard E. Carmen, Au.D. – Auricle Ink Publishers, Sedona, AZ

In the past many years there have been a number of herbal remedies claiming benefit for tinnitus. As a clinical and research audiologist, I reviewed the literature on herbal treatments in 2004 and was unable to substantiate that any of the product manufacturers' claims were backed by U.S. evidence-based research. As a former human studies researcher in the area of tinnitus during the 1980s, I've remained interested in this subject matter. In that it had been six years since I last looked at the literature, in June-July/2010 I ran a Medscape search that revealed 174 articles mentioning the word *tinnitus*. However, none of them were scientific studies on herbal treatments for tinnitus. On a Medline search for "tinnitus," 7,078 articles were cited. But when I refined the search to

"herbal treatment for tinnitus," 24 articles were cited, almost all of which were useless because they only mentioned the word *tinnitus* or *herbal treatment*, but were not related to a study. Only one was an actual study (article in Chinese), and based on the abstract in English, there are serious flaws in the design of the study, not the least of which was the study lasted only 5 days.

I think Enrico and his research team in 2007¹ aptly sum things up regarding herbal treatments and tinnitus. It ". . . lacks substantial scientific support, and . . . these substances are probably not clinically effective either." Furthermore, they stated that, ". . . in view of the potential harm that may occur from inappropriate use of CAM products [complementary and alternative medicines, such as herbs], physicians need to be aware of their principal characteristics with particular emphasis on toxicity and possibilities of interaction with prescription drugs."

In addition, in June-July/2010, I contacted two companies with over-the-counter tinnitus remedies using herbs, nutrients or a combination, for treatment of tinnitus. My inquiry to them was, "What U.S. evidence-based research is your claim based on?"

One company's representative claiming tinnitus relief through their product (now seen all over television and print media) replied, "We've done extensive research over five years and the product works!"

I asked, "Where can I find this published study?"

She replied, "It's not for public viewing."

It defies common sense. If you have a *proven* relief for tinnitus, you'd want to be sharing this news with the world. Yet, they could provide nothing to me other than a claim and their word. The other company I contacted basically said the same thing – admitting there was no tinnitus research the company conducted to back the claim - BUT – I was told that the ingredients in the bottle were effective for a variety of things related to increasing blood flow, maintaining cognitive health, or relaxing the body.

On July 7, 2010, I ran an online search, "herbal treatment for tinnitus," at *The New England Journal of Medicine* and the search turned up only one result, unrelated to the question. The same search at *The Journal of the American Medical Association* cited many articles isolating the word *tinnitus* in an article, but in the top 100 results, not a single article reported conducting such a study.

Here are the conclusions from an abstract that Morris and Avorn³ offer: "Consumers may be misled by vendors' claims that **herbal** products can treat, prevent, diagnose, or cure specific diseases, despite regulations prohibiting such statements. Physicians should be aware of this widespread and easily accessible

information. More effective regulation is required to put this class of therapeutics on the same evidence-based footing as other medicinal products.”

It's probably worth noting that the single most touted ingredient in some of these purported remedies is Ginkgo biloba. My general review of the literature in 2004, and again in June/2010, failed to uncover a single U.S. scientific study that supported the notion that any herbal treatment, including Ginkgo biloba, was of any more benefit for tinnitus than a placebo (sugar pill). Even company executives of tinnitus relief companies could not provide the data. What's more, researchers can't even agree that Ginkgo biloba is of benefit to health unrelated to tinnitus (see a December/2009 report on Medscape regarding a study on Ginkgo in *Journal of the American Medical Association*: www.medscape.com/viewarticle/714476).

Now then, in fairness as a reporter and quite in contrast to U.S. studies, some European research showed there was a link between herbal treatment and tinnitus. This is the basis for U.S. product claims. The problem is, as I said earlier, that results from these foreign studies have not been replicated in U.S. studies, so the methodologies in these foreign studies should be challenged. The reason there may be no studies conducted on herbal treatment for tinnitus is because there are far stricter guidelines in the U.S. than most other countries. We cannot know the flaws in research without knowing how the studies were designed, and exactly what the data showed. Here are only a few examples how tinnitus research can be so flawed and biased as to **make the study itself worthless**:

- scant case history details and “fact gathering” make for unreliable or biased results;
- not isolating and identifying variables (those things that could contaminate a study like having one patient privately taking a prescribed drug for stress or depression, for example, at the same time being assessed for the value of the test herb);
- not considering duration of tinnitus may be an influential factor (someone who just developed tinnitus last week versus a subject suffering for 20 years);
- not objectifying rating scale questions (how a researcher *measures* relief can influence outcome);
- not using standardized scales and measures in order to determine what comprises *improvement or relief*;
- failing to use randomized, blind or double-blind, placebo-controlled methodology;
- not taking into consideration the “unknowns,” for example, if most subjects report *subjective tinnitus loudness* about 1-4 (on a scale of 1–10 where 10 is loudest tinnitus), it may well be easier to shift tinnitus from 4 to 1 than from 8 to 5;
- failing to perform a physical exam at baseline to rule out potential factors that could influence the test result;
- failing to rule out obvious causes of tinnitus that could result in *spontaneous recovery from tinnitus even after many months or years* – and there are such known recoveries with cause and effect (for example, tinnitus caused by pressure or fluid in the middle ear can be resolved when the medical cause is treated; or something as simple as an ear canal hair touching the eardrum can set off a sound emission through conductance, with tinnitus immediately gone upon removal of the hair).

Linde² and a group of researchers in 2003 reviewed clinical trials on herbal medicines including their effects on tinnitus, requiring what they felt were specific stringent methodology, and concluded, “From a total of 79 potentially relevant reviews pre-selected in the screening process, 58 met the inclusion criteria. Thirty of the reports reviewed Ginkgo (for dementia, intermittent claudication, tinnitus, and macular degeneration), hypericum (for depression) or garlic preparations (for cardiovascular risk factors and lower limb atherosclerosis). The quality of primary studies was criticized in the majority of the reviews.”

If you're a person who regardless of the evidence seeks to try anything, then it should at least be done under medical supervision. It's worth mentioning that in most people there are apparently few side effects using Ginkgo biloba (oral administration of Ginkgo special extract EGb 761, typically 24% ginkgo-flavonol glycosides, 6% terpene lactones). However, there can be side effects including gastrointestinal disturbances, headaches, dizziness, intracerebral hemorrhage, and allergic skin reactions. Most importantly perhaps is that it does function as a vasodilator (opens the blood vessels more). For people already on vasodilators it can increase the risk of bleeding; for example, when used in conjunction with histamines, anticoagulants (like Coumadin or Warfarin), vitamin B3 (variations of niacin), Alpha blockers (such as [Phenoxybenzamine](#)), antiplatelet agents

(like aspirin), and even other herbs.

I would suggest to anyone searching for tinnitus relief no matter the treatment: be vigilant, discerning, demand to see the evidence that the product works, and don't throw good money away on testimonials alone. That's not science.

1. Enrico P, Sirca D, Mereu M., Antioxidants, minerals, vitamins, and herbal remedies in tinnitus therapy. *Prog Brain Res.* 2007;166:323-30.
2. Linde K, ter Riet G, Hondras M, Vickers A, Saller R, Melchart D; Systematic reviews of herbal medicines—an annotated bibliography. *Forsch Komplementarmed Klass Naturheilkd* 2003; Apr,10 Suppl. 1:17-27.
3. Morris CA and Avorn J. Internet marketing of herbal products. *JAMA* 2003;290:1505-1509.