

Dr. Kukurin has studied at some of the world's finest institutions including Harvard, the Mayo Clinic and Johns Hopkins. He has applied his knowledge of acupuncture, chiropractic and rehabilitation to more than 10.000 patients over the past two decades. The unique methods he developed, along with his vast experience in patient care, allow him to treat even the most difficult cases quickly and effectively. The results our patients experience are exceptional. They have been featured on ABC, FOX and NBC news affiliates: have been published in the National Library of Medicine and even presented to other doctors at Johns Hopkins Dr. Kukurin's Medical School. reputation for providing world class patient care has been recognized by The Consumers Research Council of America, Who's Who in Medicine and Who's Who in Leading Professionals. Making Dr. Kukurin, one of the country's top chiropractic physicians.

> Journal of Rapid Pain Relief

Effective Home Remedies that Doctors Give Their Patients

Will someone please stop the ringing in my ears!

Tinnitus is the perception of noise where no sound is actually present. It's described as ringing in the ears. It can be quite debilitating and is a common malady, but it's cause is largely unknown. In the animal model of tinnitus, it appears that those structures in the brain that inhibit the nerves carrying auditory sensations (sound or noise) become defective. The net result is increased activity in the nerves that carry sound. The cause of most forms of tinnitus is thus a form of neural reprogramming in the brain that is not to the benefit of the individual person. At least in animals, chronic tinnitus is associated with

Ringing in your ears may actually be ringing in your brain. New research suggests that tinnitus or ringing in your ears in a problem in the central nervous system.



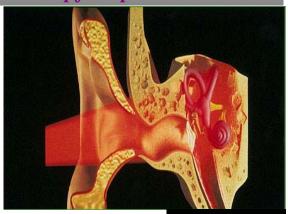
Furthermore research suggest that the neurotransmitter GABA is associated with tinnitus. Drugs that act to increase the effects of GABA, appear to reduce tinnitus and the abnormalities in the brainstem that are associated with tinnitus. (1,4,5) Elevation of activity in the parasympathetic nervous system relative to the sympathetic nervous system correlates with improved tinnitus symptoms.(6)

There is no specific treatment for tinnitus, but there are several treatments that can alleviate or reduce the tinnitus in some patients.

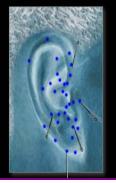
This issue: Breakthrough treatments for tinnitus Will LASER Therapy help?

From the brief discussion above, it appears that tinnitus is a form of nerve dysfunction. We have a variety of tools we use to treat nerve dysfunction in other parts of the body. So at least in theory, therapy like low level laser, electrical stimulation and ultrasound may improve tinnitus. These treatments are safe, so a month's trial of treatment carries very little risk and offers hope for patients suffering from tinnitus. Some studies suggest that Laser light, directed into the ear may eliminate or reduce tinnitus. (10) **See the illustration to the right.**

The auriculo-temporal nerve, that innervates the external ear, may be a perfect target for treating tinnitus. Electrical stimulation of this nerve has been shown to increase the activity in the parasympathetic nervous system.* As described above, increased parasympathetic nervous system activation is associated with decreased tinnitus. There are a number of classical acupuncture points associated with



the auriculo-temporal nerve. The image to the right shows some of the acupuncture points surrounding the ear. These points are associated with the parasympathetic auriculo-temporal nerve. Acupuncture can help with tinnitus. (7)



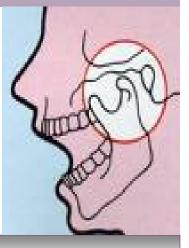
Your jaw bone is connected to your ear bone and your neck bone?

Most people think of chiropractic treatment as bone treatment, but the truth of the matter is that chiropractic treatment profoundly affects the nervous system. One of the unexpected benefits of spinal manipulation as performed by chiropractors is reduced or eliminated ringing in the ears. (8,9)

Dr. Kukurin (right) provides chiropractic treatment to a patient. This is the same treatment that appears to help many people suffering from tinnitus. (8,9)



There are a growing number of reports in the medical literature that suggest problems with the jaw joint or TMJ, can produce tinnitus. Treatment that restores normal function to the jaw often reduces or eliminates tinnitus.(6) TMJ disorders can often be corrected with a simple maneuver. See our newsletter on TMJ to learn more about it. The TMJ joints pictured to the right, can contribute to ringing in the ears. Call us to find out more about our TMJ treatment.



Herbs for tinnitus?

As we discussed on the previous page, GABA, a chemical that is involved with the transmission of signals in the nervous system, appears to play an important role in the suppression of tinnitus. Drugs that increase the levels of this neurotransmitter reduce or abolish tinnitus. (4) So what natural substance is available that might increase GABA levels in the nervous system and possibly abolish tinnitus? Well GABA itself is a naturally occurring amino acid. It is available in health food stores. However there is some question if orally taken GABA can actually get into the brainstem where it is needed to suppress tinnitus. A better

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 Possible involvement of GABA(A)-benzodiazepine receptor in the anxiolyticlike effect induced by Passiflora actinia extracts in mice. J Ethnopharmacol. 2006 Nov 26; approach, might be to supplement herbs that increase the activity of GABA in the nervous system. Valerian Root has been used to calm the nervous system for hundreds of years. Recently this herb has been shown to work through GABA receptors. (11,-13) Several other herbs may also influence GABA receptors in the brain and brainstem making them attractive nutrients for the possible treatment of tinnitus. Hops, widely used in beer making appears to bind to GABA receptors, (11), likewise extracts of Passion Flower exert GABA-like influence on the nervous system. (14). Progressive Labs (Dallas, Texas) makes a product called GABA-Val®.

GABA-Val, LASER, acupuncture, chiropractic and other treatments known to effect the nervous system, offer the first real hope for patients suffering from tinnitus in years

This supplement contains GABA, Valerian Roots, Passion Flower, Hops and other synergistic nutrients designed to stimulate GABA receptors in the nervous system. GABA-Val ® thus appears to be an ideal natural supplement that has potential to reduce or eliminate tinnitus. Combining this nutrient formula with LASER, acupuncture, chiropractic and other treatments known to effect the nervous system offers the first real hope for patients suffering from tinnitus in years.

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