

TINNITUS

What is it ?

Its full name is *tinnitus aurium*. Tinnitus in Latin means jangling or din, hence the Latin name 'ear din'. It refers to a constant or intermittent subjective sensation of sound (ringing, whistling, booming, hissing, etc) in one or both ears. It generally afflicts the elderly, and many varying but unsubstantiated explanations for the mechanism behind it exist.

Whom does it affect most frequently?

They are most affected who are exposed to high levels of noise in their occupations, whether that be in industry or in a rock music band, for instance.

Tinnitus and Vertigo

Tinnitus in the younger person (under about 50 years old) is often associated with vertigo. This combo may be due to very many causes [R L Souhami & J Moxham.

Textbook of Medicine, 3rd ed, Churchill Livingstone: Edinburgh, 1997, pp 1075 & 1076]:

- A disturbance in the semicircular canal of the inner ear, or of the vestibular nuclei of the brain stem, which are the centres that control your balance.
- Episodes of low blood-glucose levels (hypoglycæmic attacks).
- High blood pressure.
- With herpes zoster - the so-called Ramsey-Hunt syndrome, in which there is VII-th cranial nerve involvement.

An infection affecting the organs of balance in the inner ear. This usually starts off as a cold or 'flu, and may develop into a condition called labyrinthitis, or it may be the result of taking so-called ototoxic drugs (ones that adversely affect hearing or the ears, and produce tinnitus: e.g. Aminoglycoside antibiotics, Aspirin, Cytotoxic drugs, Loop Diuretics, or Quinine [D McFerran, FRCS. *Drugs, Food and Drink*, leaflet issued by **Br Tinnitus Ass**, Feb 2005]).

Anæmia.

The inner ear disorder known as Ménière's disease.

Tinnitus and vertigo may also occasionally be a side-effect of antibiotics (the said Aminoglycosides, like Gentamicin, or Streptomycin [which cause permanent vestibular and auditory damage; but refer to Chinese Herbal Medicine below], or the taking of excessive amounts of *Uva ursi* [common Bear's grape; its effects, fortunately, are reversible (D J McKenna, K Jones & K Hughes. *Botanical Medicines – The Desk Reference*, 2nd ed, Hawthorn Press, Inc: Binghamton, NY, 2002, p 1000], or simply the result of yeast fermentation in the gut, when some alcohol is released into your blood stream).

Excessive alcohol consumption, food poisoning or heat-stroke.

Atherosclerosis, which by clogging certain arteries can reduce blood supply and oxygen to parts of the brain (cholesterol to be checked).

In rare cases a tumour of the brainstem, or multiple sclerosis, or carotid sinus

syncope (transient impairment of cerebral blood flow), or temporal lobe seizure (this is a type of epilepsy).

Up to 50% of individuals with tinnitus and vertigo due to labyrinthitis will have had a cold or other viral infection shortly before the onset of the symptoms;

Sometimes mild tinnitus and vertigo are produced by wax jammed against the ear drum;

Finally, there is what osteopaths and chiropractors call cervical vertigo and tinnitus, which can be produced by proprioceptive in-put from certain neck muscles or ligaments, or the sternocleidomastoid muscle. [L Wing & W W Hadephobes, *Cervical Vertigo*, *Aust N Z J Surg*, 1974, **44(3)**: 275-277; O Jepsen, *Dizziness Originating in the Columnna Cervicalis*, *J Can Chiropr Ass*, 1967, **11(1)**: 7-8; and W W Hargrave, *The Cervical Syndrome*, *Aust J Physiotherapy*, 1972, **18th Dec**: 144-147.]

Your Osteopath, Chiropractor, Audiologist or GP may carry out tests on your ears, eyes, neck, and nervous system in search of the underlying cause, which can then be treated appropriately; or may sometimes suggest a computer-assisted tomographic (CT) scan of the brain.

Tinnitus in Children

Because a child's ear problems may sometimes be associated with serious predisposing conditions, self-prescribed treatments are not recommended. The table below indicates how a parent may recognize serious conditions of the ear:

<u>Symptom</u>	<u>When to worry</u>
Pain in the ear	Severe, with fever
Discharge from the ear	Long duration
Vertigo	Severe
Deformity of the ear	Severe
Lumps around or on the ear	Severe, if with redness, pain and deafness
Headaches	Progressive, severe with short history, with some central nervous system symptoms
Facial weakness	With history of ear pain
Deafness	Short history, progressive
Tinnitus	Progressive

As an important aside, you may be amazed to find out that several investigations showed **no** real differences in the clinical course of acute otitis media, where tinnitus often plays in the background, when placebo was compared with conventional treatments. That is, no differences were evident between non-antibiotic therapies, myringotomy (incision in the ear drum), myringotomy with antibiotics, and antibiotics alone. Yet, significantly, patients **not** taking antibiotics did, in fact, have fewer recurrences than those given antibiotics [F L van Buchen et al, *Lancet*, 1981, 2: 883-887; M Diamant and B Diamant, *Arch Otol*, 1974, 100: 226-232; N. Mygind et al, *Clin Otol*, 1981, 6: 5-13]. My own experience has been that such a child does

best with cranial osteopathy, such as is offered by the Osteopathic Centres for Children in London and Manchester. Yet, in any event, giving nothing has been shown, paradoxically, to be better than giving antibiotics.

Allergic Tinnitus

This comes on in sudden attacks, lasting from a few minutes to a few hours. Technically it is referred to as 'otologic allergy'. Tinnitus may be unilateral or bilateral, and the sound is, as a rule, high-pitched. Hearing is often also impaired, but returns to normal between attacks. Each episode of allergic tinnitus can be explained on the basis of an oedematous reaction in the structures of the inner ear and labyrinth [L H Crip. *Clinical Immunology and Allergy*, 2nd ed, Grune & Stratton: London, 1969, p 385]. As early as 1893 the Viennese physician Heinrich Quincke, who eleven years earlier had first described the allergic swellings of giant urticaria (hives) [H I Quincke. *Monatshefte Praktischer Dermatologie*, 1882, 1:129-131], referred to the possibility of this being caused by urticaria-like swellings affecting the middle ear. In short this is not a novel unproven concept or cop-out, as is now often maintained.

What can I do about my tinnitus ?

Natural medicine can successfully treat many types of tinnitus. I suggest that you follow a step-by-step approach to treatment, each step of which has published hard-science backing, though, inevitably, there are always the $\pm 40\%$ who are non-responders.

Manual Therapies

The first port-of-call for most people with buzzing in the ears is an osteopath or chiropractor, who may attempt to manipulate your neck or jaw. **Only very occasionally does this help tinnitus, while vertigo, which is related, often responds well** [A Stoddard. *Manual of Osteopathic Practice*, Hutchinson & Co: London, 1974, p 230].

Dietary Therapy

A 'Low Fat, Low Cholesterol' diet is often successfully used to control *Ménière's Syndrome* in which tinnitus frequently plays a significant part [J T Spencer Jnr, *Hyperlipoproteinæmia, Hyperinsulinism and Ménière's Disease*, *South Med J*, 1981, 74:1194-1197; and J L Pulec et al, *Progressive Sensorineural Hearing Loss, Subjective Tinnitus and Vertigo Caused by Elevated Blood Lipids*, *Ear Nose Throat J*, 1997, 76(10):716-720, 725-726, 728 passim]. If you wish to follow this approach to tackle your tinnitus, you may find it useful to refer to the self-help advice in *Prescription for Nutritional Healing* by J F Balch & P A Balch (Avery Publishing Group: New York, NY, 1997), particularly on pages 303 to 306. **You should certainly reduce saturated fats in your diet.** In patients with high cholesterol levels, ringing in the ears often lessens and sometimes disappears once they lower fat in their diet [South Med J, 1981, 74:1194-1197; and *Acta Otorhinolaryngol* (Stockholm), 1970, 70(4):242-247]. **Moreover, replace refined sugar completely with complex carbohydrates and naturally occurring sugar.** Some tinnitus sufferers show high insulin levels with a simultaneous abnormal glucose tolerance test. **A low carbohydrate, high protein diet may even help you** [Ann Otol Rhinol Laryngol, 1981, 90(6 part):615-618].

Hypersensitivity to foods containing salicylates

Salicylate sensitivity is the body's inability to handle more than a certain amount of salicylates at any one time. A salicylate sensitive person may have difficulty tolerating certain fruits, vegetables, or any products which contain aspirin. A large number of common foods contain salicylates. ***By abstaining from the foods concerned, those who are sensitive to salicylates find relief*** [Am J Otol, 1989, 10(3):256; and AADA News, 1987, 5(4):10]. The following web-site has a list of foods showing the salicylate content of many common foods conveniently graded: HYPERLINK "http://allergies.about.com/od/salicylate" <http://allergies.about.com/od/salicylate>. If you do not have access to the internet, there is also an ungraded list of the foods containing salicylates available in printed form [J Brostoff & L Gamlin. *The Complete Guide to Food Allergy and Intolerance*, 2nd ed, Bloomsbury Publishing Ltd: London, 1992, Appendix II, p 301].

Vitamin and Nutritional supplementation

A double-blind crossover randomized controlled trial (n=30) of **melatonin** found no overall superiority over placebo, although a subgroup analysis indicated better results in patients with bilateral than with unilateral tinnitus[Rosenberg S I, Silverstein H, Rowan P T, Olds M J. *Effect of melatonin on tinnitus. Laryngoscope*, 1998, 108:305-310]. ***It has been shown that supplementing your diet with a combination of vitamins A and E can often improve or sometimes even cure tinnitus*** [Acta Vitminol Enzymol, 1985, 7 Suppl: 85-92; and Arch Otolaryngol, 1991, 5:515-526].

Acupuncture

A systematic review of six randomized controlled trials of acupuncture or electro-acupuncture found no convincing evidence of effectiveness [Systematic review: *Acupuncture for Tinnitus, Arch Otolaryngol*, 2000, 126:489-492]. Two open trials involving 185 patients comparing acupuncture to other interventions reported some beneficial effects, but four sham-controlled trials had negative results. Methodological limitations restrict the conclusiveness of the results. ***Yet, there may be some short-term benefits in acupuncture for some sufferers. You may wish to try it.***

Mineral status

Check your mineral status by means of an atomic emission and atomic absorption hair mineral analysis. When there are deficiencies of zinc, magnesium and potassium evident, ***taking appropriate supplements has been shown to help*** [for zinc: Am J Otol, 1986, 7(6):476-477; for magnesium: Med Hypotheses, 1983, 10(4):353-358; for potassium iodide: Am J Otol, 1989, 10(3):256].

Biofeedback

Positive results for biofeedback have been reported in randomized controlled trials when compared with no treatment [White T P, Hoffman S R, Gale E N. *Psychophysiological therapy for tinnitus, Ear Hearing*, 1986, 7:397-399], sham feedback [Podoshin L, Ben-David Y, Fradis M et al. *Idiopathic subjective*

tinnitus treated by biofeedback, acupuncture and drug therapy, *Ear Nose Throat J*, 1991 70:284-289] and other treatments [Erlandsson S I, Rubinstein B, Carlsson S G. *Tinnitus: evaluation of biofeedback and stomatognathic treatment*, *Br J Audiol*, 1991, 25:151-161]. **You may get relief through biofeedback.**

Phytotherapy

A systematic review of five randomized controlled trials of *Ginkgo biloba* involving 541 patients compared with placebo or orthodox pharmacotherapeutic treatment concluded that the evidence was favourable [Systematic review: *Ginkgo for Tinnitus*, *Clin Otolaryngol*, 1999, 24:164-167]. **In my own experience, *Ginkgo biloba* has helped a fair number of sufferers.**

Chinese Herbal Medicine

Drynaria rhizome (in Chinese: *g sui b*) has shown its usefulness in the treatment of the damaging effects of streptomycin. Preparations of the root of this herb were used to treat 21 patients afflicted with the ototoxic effects of streptomycin, with success in all but two cases within three days. However, when the herb was stopped the symptoms re-appeared, but administering the herb again stopped the problem once more [D Bensky & A Gamble. *Chinese Herbal Medicine Materia Medica*, rev ed, Eastland Press, Inc: Seattle, Washington, 1993, p 350 under 'Pharmacological and Clinical Research']. **This herb now has a definite place in controlling tinnitus and hearing loss from streptomycin.**

Homœopathy

Hahnemannian pathogenetic experiments (provings), conducted by P C Majundar and L Chakrabarti, on the seeds of *Melia azadirachta indica* (which contain the resin margosa) established the remedy's homœopathic indication for tinnitus [F Lamsson. *Pathogénésie de Azadirachta indica*, *Annales Homéopathiques Françaises*, 1968, 10(3):851-858]. Similarly, the homœopathic provings, undertaken by V G Divanji in 1931, using a very low potency (1x) of *Ocimum sanctum* (Monks' Basil), established this remedy's affinity to tinnitus [*The Homœopathic Recorder*, 1931, 46:595]. Both these remedies now flag tinnitus in their published symptomatology [W Bœricke. *Pocket Manual of Homœopathic Materia Medica with Repertory and Indian Drugs*, B Jain: New Delhi, 1990, pp 1052 & 1070]. **Have a qualified homœopath prescribe one of these proven remedies in a lower potency.** By contrast, a double-blind randomized controlled trial (n=28) of a homœopathic remedy called 'Tinnitus' (the substance of which remained unspecified, but was believed to be potentized malleus, the hammer-like ossicle in the inner ear) found no superiority over placebo for intensity or intrusiveness of tinnitus or any audiological measures [Simpson J J, Donaldson I, Davies W E. *Use of homeopathy in the treatment of tinnitus*, *Br J Audiol*, 1998, 32:227-233].

Hypnotherapy

Three randomized controlled trials have suggested that hypnotherapy or self-hypnosis is comparable or superior to counseling or masking interventions in reducing subjective tinnitus symptoms [*Scand Audiol*, 1990, 19:245-249; *Audiology*, 1993, 32:205-212; and *J Laryngol Otol*, 1996, 110:117-120]. **The evidence for this therapeutic approach is encouraging.**

Relaxation

Randomized controlled trials have suggested that relaxation training may be superior to no treatment [Lindberg P, Scott B, Melin L, Lyttkens L. *The psychological treatment of tinnitus: an experimental evaluation*, **Behav Res Ther**, 1989, **27**:593–603; and Scott B, Lindberg P, Melin L, Lyttkens L. *Psychological treatment of tinnitus. An experimental group study*, **Scand Audiol**, 1985, **14**:223–230] and as effective as cognitive techniques [Jakes S C, Hallam R S, Rachman S, Hinchcliffe R. *The effects of reassurance, relaxation training and distraction on chronic tinnitus sufferers*, **Behav Res Ther**, 1986, **24**:497–507; and Davies S, McKenna L, Hallam R S. *Relaxation and cognitive therapy: a controlled trial in chronic tinnitus*, **Psychol Health**, 1995, **10**:129–143], but in most cases placebo effects can not be discounted. ***On balance the evidence seems to suggest that relaxation may reduce the annoyance of tinnitus, but benefits appear to be quite modest and short-term.***

Salt intake

For tinnitus that hasn't responded to the natural therapeutic approaches mentioned so far, ***reducing your daily intake of salt (NaHCl) to 150-400 mg may help***[*J Appl Nutr*, 1988, **40**(2):750-784].

Toxic metal load

If your body carries high levels of aluminium and/or lead (as demonstrated in a reputable hair mineral analysis), you are at greater risk of developing tinnitus [P Yannik & J G Clark. *Tinnitus and its Management*, Charles C Thomas: Springfield, Illinois, 1984]. ***You should, therefore, reduce your toxic metal load, which may lessen the intensity and intrusiveness of your tinnitus*** [M A Howard. *Townsend Letter*, Feb/Mar 1985, p 31].

Rutin to the rescue

If nothing else has worked, ***you may improve or completely resolve symptoms by taking a rutoside supplement***, specifically the one called 7-mono(O-beta-hydroxyethyl) rutoside, a bioflavonoid related to rutin, which has both a histamine-liberating capacity (helpful in allergic tinnitus) and, like *Ginkgo biloba*, is a particularly good remedy when your tinnitus is caused by a circulatory problem [*Otolaryngol Polon*, 1989, **43**(3):214-217].

Tinnitusmaskers

The wearing of a 'Tinnitusmasker' has brought relief to resistant cases and in instances when there has only been partial relief of the annoyance of tinnitus symptoms. It resembles a hearing-aid and produces a rushing sound ('white noise'), which makes you unaware of your own ear-sounds [H Schilcher & S Kammerer, *Leitfaden Phytotherapie*, Urban & Fischer Verlag: Munich, 2000, p 800].

The overall view

Given the lack of effective conventional treatment options, and the fact that the natural therapies I have mentioned above carry few risks yet show some promise, they must, surely, be worth considering seriously.

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