Tinnitus and Hyperacusis

What is tinnitus?
Tinnitus, from the Latin word for “ringing,” is the perception of sound generated in the head. Tinnitus is not a disease – it is a symptom.
The sound may be heard in one ear or side of the head, in both ears, or in the centre of the head. The quality of sound heard ranges in pitch (highness or lowness of tone) and loudness. The sound may or may not pulse. Sounds include clicking, humming, music, voices and explosions. Tinnitus may be continuous or may come and go.
Tinnitus affects about 10% of the population and is rarely a serious medical condition. About 90% of sufferers have some hearing loss in one or both ears. Tinnitus is not equally distressing to all patients; about 25% seek help. In most cases, these patients can learn to manage the condition and get on with their lives.

What is hyperacusis?
Hyperacusis is sound intolerance; moderately loud sounds are uncomfortable or painful. About 85% of those with hyperacusis also have tinnitus. Its subtypes are:
- Loudness hyperacusis
- Annoyance hyperacusis (misphonia) – such as the noise made by someone chewing or repetitive sounds such as pen-clicking
- Fear hyperacusis (phonophobia)
- Pain hyperacusis (piercing headaches)
Hyperacusis may also have visual triggers. It can be managed through lifestyle and judicious use of earplugs.

Causes of tinnitus
Tinnitus stems from abnormal activity anywhere along the auditory pathways. The perception of tinnitus is influenced by the brain’s sensory and motor structure, cognitive network and emotional network (limbic system).
The noise of an MRI scan may trigger or exacerbate tinnitus and hyperacusis. Scanning sequences for the internal auditory canal (IAC) are especially noisy, however equipment can be set up to reduce noise exposure.

Tinnitus and vestibular disorders
Tinnitus is associated with a number of vestibular (inner-ear dizziness) disorders including acoustic neuroma, cholesteatoma, Ménière’s disease, perilymph fistula, and secondary endolymphatic hydrops.

Impact of tinnitus
When the brain gives tinnitus signal priority, the impact can be considerable. Sufferers frequently report:
- Sleep disturbance
- Difficulties with concentration and focus
- Finding it hard to hear other sounds
- Being more aware of tinnitus in quiet surroundings
- Experiencing a range of feelings including anxiety, despair, hopelessness, anger, frustration, persecution and loss of control

Treatment of tinnitus
Although there is no cure, tinnitus can usually be managed effectively. Options include:
- Amplification using hearing aids. Hear4U Foundation (hear4u.ca) and the WIDHH Lend an Ear program (call 604-736-7391 for information) provide access to refurbished hearing aids for British Columbians as well as information about subsidies and extended health coverage.
- Sound therapy, for example using a system such as Sound Oasis (soundoasis.com)
- Tinnitus retraining therapy (TRT) – see more below
- Cognitive behavioural therapy (CBT);
- Mindfulness-based stress reduction through self study, classes or through an online course tailored for tinnitus relief such as Mindfulness Based Tinnitus Stress Reduction (mindfultinnitusrelief.com)
- TMJ (temporomandibular joint disorder) therapy – contact us or use the Physiotherapy Association of BC’s Find a Physio webpage to find a TMJ specialist
- Massage therapy
Benefits of using hearing instruments
Sound amplification with or without a sound generator may:
- Make tinnitus less noticeable
- Improve listening ease and sound tolerance
- Promote relaxation
- Disrupt neural activity

Benefits of sound therapy
Benefits may include:
- Making tinnitus less noticeable
- Fostering a sense of self control
- Helping retrain neural networks involved with tinnitus generation
- Promoting relaxation
- Improving hyperacusis

Tinnitus retraining therapy
Tinnitus retraining therapy (TRT) is a type of habituation-based therapy that can help tinnitus become less noticeable and annoying. It can also help to partly or completely reverse hyperacusis.

The BC Medical Services Plan does not cover the cost of TRT. Some patients may be eligible for coverage through WorkSafeBC, Veterans Affairs Canada or extended health plans.

Group and individual TRT sessions are offered at the Tinnitus Clinic at St. Paul’s Hospital (sphtinnitus.weebly.com) (604-806-8660). A copy of the “consult” letter from your otolaryngologist (ENT doctor) and copies of any hearing tests are required to make an appointment.

Private clinics are offered in Vancouver by Sound iDears at Oakridge Centre (604-708-9780) and in Kelowna by Lakeside Hearing (236-420-0294).

Books

A self-help workbook intended for use by anyone who is bothered by tinnitus. This third edition of the workbook has been extensively revised and expanded to include new sections describing key components of Cognitive-Behavioural Therapy (CBT).
Not available from public libraries in BC – go to (tinyurl.com/y9hyrfvn) to download a free-of-charge copy from the National Center for Rehabilitative Auditory Research.

Written by a Vancouver physiotherapist who herself suffers from tinnitus.

Living with Tinnitus and Hyperacusis by Dr. Laurence McKenna, Dr. David Baguley and Dr. Don McFerran (2010)
A comprehensive overview written by three specialists from the UK.

Self help groups
Self help groups that meet in the Lower Mainland:
- New Westminster Tinnitus Support Group (www.nwtinn.ca)
- Vancouver Tinnitus Support Group email: kenjones@gmail.com

Websites
- British Tinnitus Association (tininnitus.org.uk)
- American Tinnitus Association (ata.org)

This is one in a series of BC Balance & Dizziness information sheets. We are grateful to Registered Audiologist Glynnis Tidball, MSc (SLP Aud), for help with content development and review.

CONTACT OUR SOCIETY:
Website: balanceanddizziness.org
Facebook: facebook.com/bcbalanceanddizziness/
Voicemail: 604-878-8383 or 1-866-780-2233 (toll-free)
Email: info@balanceanddizziness.org