

GUIDE FOR PEOPLE
SUFFERING FROM NOISES IN
THE EAR

Dr. Juan Carlos Olmo, Audiólogo, 2022

Guidance document for people suffering from tinnitus

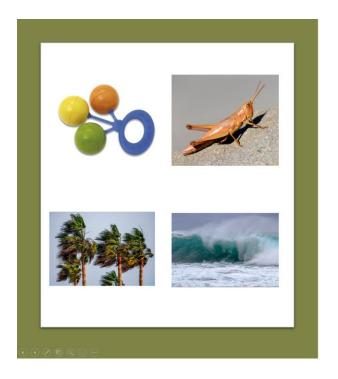
Tinnitus

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Introduction and definition of tinnitus or tinnitus

Tinnitus is a noise that the person perceives without an external source. It is a symptom, not a disease. It is the result of possible excessive activity of the auditory system, a failure in the habituation of the patient, and is very frequently present in people who have some degree of hearing loss (80%), although it can also occur in people with hearing within normal limits (20%).



¿Tienes ruido en los oídos?

- Muchas personas en el mundo escuchan ruidos en los oídos, estos sonidos se llaman Acúfenos o Tinnitus
- El ruido en los oídos puede estar asociado a pérdida auditiva
- Si tienes ruido en los oídos, puedes encontrar ayuda con un audiólogo y hacer una revisión auditiva

What is the origin of tinnitus?

The most recent research suggests that, in most cases, they originate from a deconfiguration in the communication between the auditory system and the central nervous system at the brain level, due to a hearing injury or a stress event that highlights the presence of parasitic noise or distortion, this noise triggers negative emotions.

Being a symptom, not a disease, it can have origin in various conditions, therefore, it is best to look for a specialist in hearing health so that through numerous studies, probable causes of the appearance of tinnitus can be determined in each case. Among the most common causes found in our studies are stress, exposure to noise, the effect of age on hearing, presence of earwax in the ears, ototoxic treatments, ear diseases such as Ménière, sudden deafness or otosclerosis, among others.

Tinnitus has been linked to absent limb syndrome, this is that when a person loses a part of his body (for example, an arm or leg), later he may have sensations such as pain or itching of that member that no longer exists. It also occurs when cells of the inner ear are injured, the brain may have the need to receive information from those cells that are no longer there, by not receiving information from that part of the ear, the auditory nerve can become overactive and generate a phantom signal that is known as tinnitus. For some reason or event, the person becomes aware of this phantom sound, and this originates an alert or self-defense response in the autonomic nervous system, when neurotransmitters are released, these generate anxiety and negative emotions self-reinforced by the concentration on the perceived noise, especially in silence, for example, at the night before sleeping.



Estadísticas del acúfeno

- El acúfeno no es una enfermedad, es un **síntoma** de un problema subvacente
- El tratamiento más efectivo es eliminar el problema subyacente. En algunos casos es un síntoma de una condición médica tratable.
- · El acúfeno no tiene una cura conocida
- · El acúfeno está asociado a hipoacusia
- · La hipoacusia es más frecuente en hombres que mujeres
- Cerca del 10 % de la población de EEUU ha experimentado acúfenos por al menos tres meses (25 a 40 millones de personas)
- En EEUU aproximadamente 16 millones de personas consultan por acúfenos y aproximadamente 10 millones tienen problemas en sus vidas cotidianas por esta causa
- · La exposición a ruido es la causa principal del acúfeno.

How are tinnitus evaluated?

With the appearance of tinnitus, you should go to the audiologist, who is the best prepared and accredited professional to perform hearing tests (audiometry), tinnitus study (tinnometry) and propose therapeutic options or refer the cases that merit it to the corresponding professional.



The team that does tinnitus management is composed of a psychologist, an audiologist, and a doctor. Other medical specialists such as dentistry, neurology and psychiatry can also be added.

The audiologist is the professional prepared to perform tests and address tinnitus, with properly calibrated auditory evaluation equipment, in a sound booth, where characteristics such as: Sonority, Tonality, Maskability and Residual Inhibition are explored.



Tinnomemetry is the measurement of tinnitus, it is performed by the audiologist with specialized equipment and specific techniques, the result allows to know the nature of tinnitus, its origin, sonority, and other qualities, with this profile, a personalized strategy is designed to combat it in the most effective way.

Acufenometría Medición del acúfeno



Dr. Juan Carlos Olmo, audiólogo

How are tinnitus treated?

Tinnitus is treated in an interdisciplinary way, from the psychological (behavioral therapy), medical and audiological perspective. The audiologist is usually the first professional people turn to and will provide guidance on the interdisciplinary management of tinnitus.

Although there is not known cure for tinnitus, there are ways to relieve them and in some cases their disappearance has been reported.

Sound enrichment therapy: for people who have hearing loss, a highly effective solution is the use of hearing aids, since, by enriching the sound environment, tinnitus is concealed.

Sound Therapy: for people with hearing within normal ranges and who perceive tinnitus, a pleasant sound generator is used to disguise or mask the unpleasant sensation of tinnitus.

Laser therapy of low level of stimulation (telabane): with laser light, the auditory system is stimulated to generate greater activity in the cells of the auditory system and reconfigure them so that they do not generate parasitic noises or distortion.

Millions of people in the world suffer from tinnitus although there is no specific treatment or cure for this phenomenon, but there are many solutions that allow to alleviate this problem.

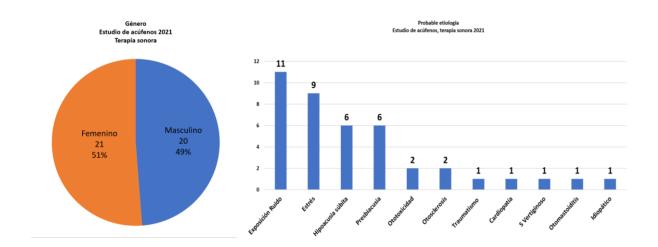
Terapia para el tinnitus

- Los audífonos pueden enmascarar el tinnitus y a la vez corregir una pérdida de audición.
- Las aplicaciones con generadores de sonido pueden aliviar el tinnitus o acúfeno
- La terapia y consejería también son eficaces para el manejo del tinnitus



Tinnitus is reinforced by states of stress, which are generated by the same concern that the patient feels when hearing noises in the ears.

Since 2021, we have been collecting data in a group of 77 patients, carriers of tinnitus of different origin, finding that this symptom affects both men and women, up to 80% of people with noises in the ears have some degree of associated hearing loss, 12 % of those evaluated required the adaptation of a hearing aid or hearing aids because they had a significant degree of hearing loss that makes it difficult for them to communicate. 20% of people with tinnitus reported being exposed to loud noise.



What habits can help decrease tinnitus?

There are healthy practices that can help relieve or decrease the anxiety, discomfort, or frustration that tinnitus can produce. Healthy eating, regular physical exercise and recreational activities are highly recommended to reduce the discomfort of noises in the ears. Meditation has proven to be very effective in diverting attention from tinnitus and directing thoughts towards positive things, converting the negative energy generated by anxiety into positive and creative energy.

Cuidados del oído y la audición

- · No introducir objetos extraños en el oído
- · No exponerse a ruido intenso
- Utilizar protección auditiva adecuada (ocio, laboral y general)
- Al escuchar música, se recomienda el uso de auriculares con Noise Reduction (NR)
- Regla de los 60/60 para escuchar música
- · No automedicarse
- Realizar una revisión auditiva (audiometría) cada año
- Alimentación sana





¡Buenas noticias!

Existen diferentes **terapias** que pueden ayudar a **disminuir** la molestia del acúfeno (**tinnitus**), ese molesto ruido que afecta la **calidad de vida** de miles de personas en el mundo.

Algunas de esas terapias son:

- Terapia Sonora
- Uso de audífonos
- Terapia conductual



El tinnitus se auto refuerza

- Escuchar un tinnitus genera estrés y el estrés refuerza al tinnitus.
- Es necesario buscar ayuda profesional y romper el círculo vicioso
- El objetivo es conseguir la habituación para evitar la molestia y ansiedad que produce el acúfeno.



In Hearing Center, we have the most qualified specialists to perform the intervention of people who suffer from tinnitus, we have the equipment and experience to guide, treat and rehabilitate people who hear noises in the ears.

More information

It is best to look at reliable sources of information and not browse reading websites indiscriminately, since unofficial pages can provide biased information that could induce you to erroneous conclusions or lead you to make decisions that can affect your physical or mental health. Constant and direct advice with a hearing health professional is the most advisable in the case of being a carrier of noises in the ears. Notwithstanding the above, there are pages of professional associations that provide valuable additional information on the subject of hearing health and tinnitus, such as those cited in this paper.

If you want more information you can contact our customer service at the telephone number (506) 22905239, write to our email info@centroaudicioncr.com or visit our websites:

www.oirbiencr.com

Hearing aids diagnosis - Hearing Center (centroaudicioncr.com)

Bibliography and sources of additional information

Tinnitus | NIDCD (nih.gov)

Tinnitus: What is tinnitus? All about tinnitus. (hear-it.org)

Association of People Affected by Tinnitus (acufenos.org)

<u>Understanding the Facts | American Tinnitus Association (ata.org)</u>

Tinnitus or Tinnitus | Symptoms, Causes and Treatment (audifono.es)

British Tinnitus Association | All you need to know (ringing ears)

<u>Clinical Practice Guideline: Tinnitus - American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) (entnet.org)</u>

Home - Tinnitus Practitioners Association

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