



# TINNITUS: A complex of Cacophony

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## I. INTRODUCTION

Tinnitus derived from the Latin verb tinnire (to ring), the term tinnitus describes the conscious perception of an auditory sensation in the absence of a corresponding external stimulus. Tinnitus can be subjective, when the experience is of the individual alone, or, less commonly, objective, when an observer can hear the tinnitus.

The sensation is generally of an elementary nature—descriptions of hissing, sizzling, and ringing are common—although, in some cases, more complex sounds such as voices or music are perceived. Tinnitus represents one of the most common and distressing otologic problems, and it causes various somatic and psychological disorders that interfere with the quality of life.<sup>[1-3]</sup>

Tinnitus also portrays as a common symptom among children with hearing loss. It is a subjective phenomenon that is difficult to evaluate objectively, with it being measured, quantified, and described only based on the responses of the patients. Although tinnitus can have many different causes, it most frequently results from otologic disorders, with the most prevailing cause believed to be noise-induced hearing loss. The various therapeutic approaches to tinnitus have produced mixed results, and hence it is generally assumed that tinnitus has diverse physiological causes.<sup>[1-5]</sup>

## ETIOLOGY

Tinnitus can be attributed to multiple etiological factors as listed below (can be remembered as acronym **NO TO CACOPHONOUS SOUNDS**)

1. **Neurological causes-** Acoustic Neuroma, Cerebellopontine angle tumours, Migraine, Multiple sclerosis
2. **Otological causes-** Otitis media, Otosclerosis, Impacted cerumen, Presbycusis, Noise exposure, Labyrinthitis, Meniere's disease, Vestibular vertigo
3. **Traumatic causes-** Temporal bone trauma, Head or neck injury.
4. **Ototoxic medications-** analgesics, antibiotics, antineoplastic drugs, corticosteroids, diuretics, immunosuppressive drugs, anti-inflammatory

5. **Cacophonous- Cardiovascular cause**(hypertension), **Psychiatric illness**
6. **Sounds-** Systemic and endocrine causes (Diabetes mellitus, hyperinsulinemia, hypothyroidism)<sup>1</sup>

## DIAGNOSIS AND MANAGEMENT:

Due to the vast array of possible underlying diagnosis, careful evaluation of each patient who presented with tinnitus is warranted through complete history taking, and physical examination. Characterization of the sound in terms of its exact description, onset, periodicity, frequency, triggers and associated symptoms are crucial and hence should be documented well. Other otological complaints such as hearing loss, aural fullness and vertigo should be taken into consideration.

Treatment can be divided into two categories

1) Those aimed at directly reducing the intensity of tinnitus

2) Those aimed at relieving the annoyance associated with tinnitus.

The former include pharmacotherapy, cognitive and behavioral therapy, habituation therapy and hearing aids.<sup>[3]</sup>

## II. CONCLUSION

Tinnitus frequently represents a symptom of an associated disease process. The complexity of the changes in the nervous system associated with tinnitus might explain why this condition has proved so resistant to treatment. Although treatment does not necessarily relieve tinnitus, accurate diagnosis and treatment are important for reducing the annoyance associated with tinnitus and for preventing additional disability.

Nevertheless, counseling represents an essential part of treatment, regardless of the management approach adopted for particular patient. For those with persistent tinnitus, cognitive and behavioral therapy, augmented by pharmacological intervention, might represent the most promising treatment regimen.<sup>[4]</sup>



### REFERENCE'S

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