

# Chapter 55

## Introduction

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### Keypoints

1. Tinnitus has many forms and many concomitant symptoms.
2. Specific subforms of tinnitus, which are characterized by phenomenological properties of the tinnitus sound, acuity, a specific time course, specific etiologies, or specific accompanying symptoms, require specific diagnostic and therapeutic management.

**Keywords** Subforms • Etiology • Chronicity • Comorbidity • Concomitant symptoms • Types • Tinnitus

### Introduction

There is increasing consensus among clinicians that tinnitus is not a disease entity. Rather, there are many different forms of tinnitus that vary in their pathophysiology and probably also in their response to treatment interventions [1]. This, in turn, implies that differentiation of the different forms of tinnitus is essential for successful therapeutic management. Differentiation according to clinical characteristics seems to be the best feasible strategy.

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This means that diagnostic and therapeutic management should be individualized according to phenomenological characteristics of the tinnitus sound (e.g., pulsatile or non-pulsatile), comorbidities (e.g., vertigo, headache, and psychiatric symptoms), time course (e.g., acute tinnitus with hearing loss), or etiologic aspects (e.g., posttraumatic tinnitus). The chapters of this section deal with the most clinically relevant specific forms of tinnitus and their diagnostic and therapeutic management.

Acute sudden hearing loss with tinnitus (see Chap. 56) represents a specific subform, which requires immediate attention. In such a situation, therapeutic activities are primarily directed toward restoration of hearing. Based on data from animal models, it is assumed that after acute onset, there is a short therapeutic window for specific therapies [2, 3].

Hyperacusis and phonophobia occur frequently together with tinnitus [4]. An exact description is given in Chaps. 3 and 4. The focus of Chap. 57 is the management of tinnitus patients where hyperacusis and phonophobia are main complaints.

Both pulsatile and paroxysmal tinnitus have to be considered as specific entities and point at characteristic underlying pathologies. These subforms of tinnitus require specific diagnostic and therapeutic management which is described in the chapters on pulsatile tinnitus (Chap. 59) and intermittent tinnitus (Chap. 58).

Low-pitch tinnitus co-occurring with fluctuating vertigo and low-frequency hearing loss is characteristic for Ménière's syndrome with endolymphatic hydrops as an underlying pathology (see Chap. 60).

When tinnitus is accompanied by headache, pathologies should be considered, which result in increased or reduced intracranial pressure. These include space-occupying lesions and pseudotumor cerebri as well as

low intracranial pressure syndrome. The diagnostic and therapeutic management of these and other syndromes are outlined in the chapter on tinnitus with headache (Chap. 61).

Severely impaired tinnitus patients frequently suffer from psychiatric comorbidities with depression, anxiety, and insomnia being the most frequent [5]. Even if a patient presents primarily because of his tinnitus, sometimes the management of the psychiatric comorbidities is in the foreground. This is definitively the case when a patient reports acute suicidal ideation. The different psychiatric comorbidities and their therapeutic management are covered in Chap. 62 with the subchapters Tinnitus and Depression (Chap. 63), Tinnitus and Anxiety (Chap. 64), and the chapter Tinnitus and Insomnia (Chap. 65).

The last two chapters of this section are devoted to tinnitus with a specific etiology. Whenever tinnitus occurs in conjunction with a traumatic event, specific diagnostic management is indicated (see Chap. 66) [6]. This is not only necessary for the best possible treatment of tinnitus itself but also to avoid further complications since tinnitus after trauma can be a symptom of a severe underlying condition that may become life threatening if left untreated (e.g., carotid dissection) [7]. A separate chapter is devoted to blast injuries (Chap. 67) as a specific form of posttraumatic tinnitus. This form of tinnitus is of high clinical relevance, since tinnitus has become one of the most relevant warfare-related health problems in the last few years [8]. Furthermore, blast injuries are a particular diagnostic challenge, since the tinnitus-inducing mechanisms

may include noise, ear, head, neck, and emotional trauma [9, 10].

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