



# Tinnitus Treatment

Patient education and counseling tool

Dear hearing care professional,

With this tool, we at Oticon would like to offer you a way to educate and counsel your patients about their tinnitus. Our education and counseling tool consists of five topics for your patients to look at, along with key points to help you cover important aspects of tinnitus etiology, characteristics, and treatment through sound therapy. We recognize that professionals have their own unique way of educating and counseling patients and this tool is meant as a way to complement the important work you already do.

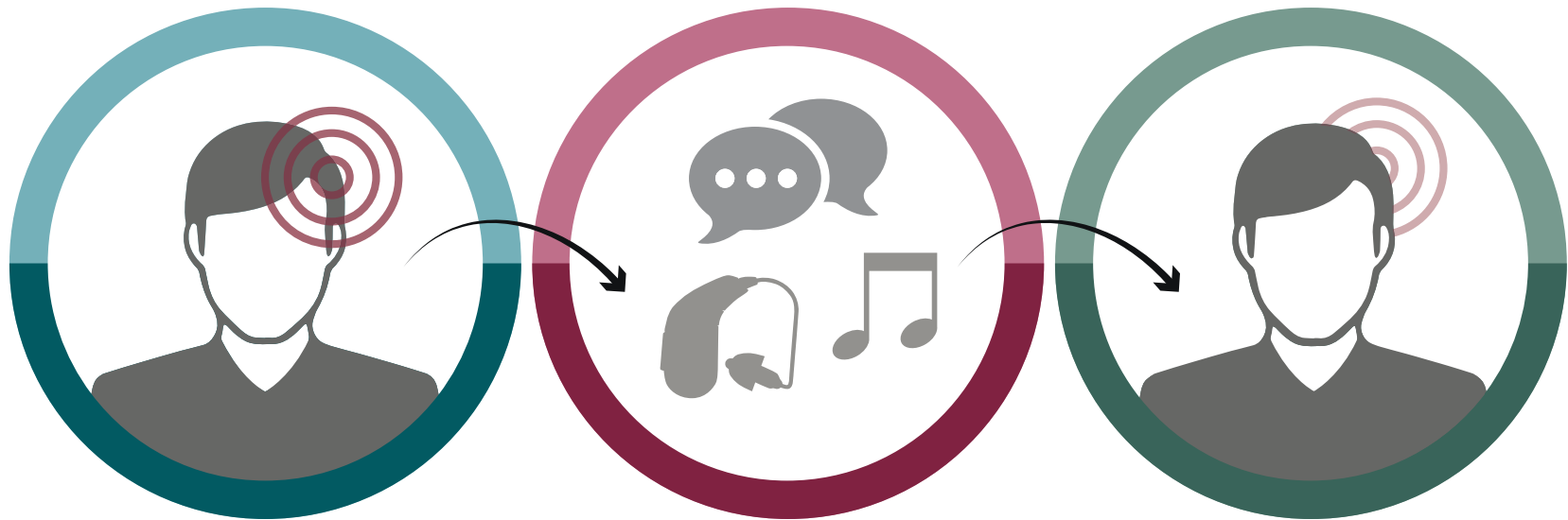
In the back of the booklet, more in-depth descriptions for each illustration are given. If you are new to tinnitus treatment, these descriptions can serve as a suggestion for what you might say to your patient.

Let's get started!

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# The treatment journey



Your starting point

Your individual treatment

Living with tinnitus



Every person with tinnitus is unique.  
The first step is to understand what YOU need



There are many treatment options. Together,  
we will determine what works best for you



There is hope. The goal is to help you take  
control over your tinnitus and find relief

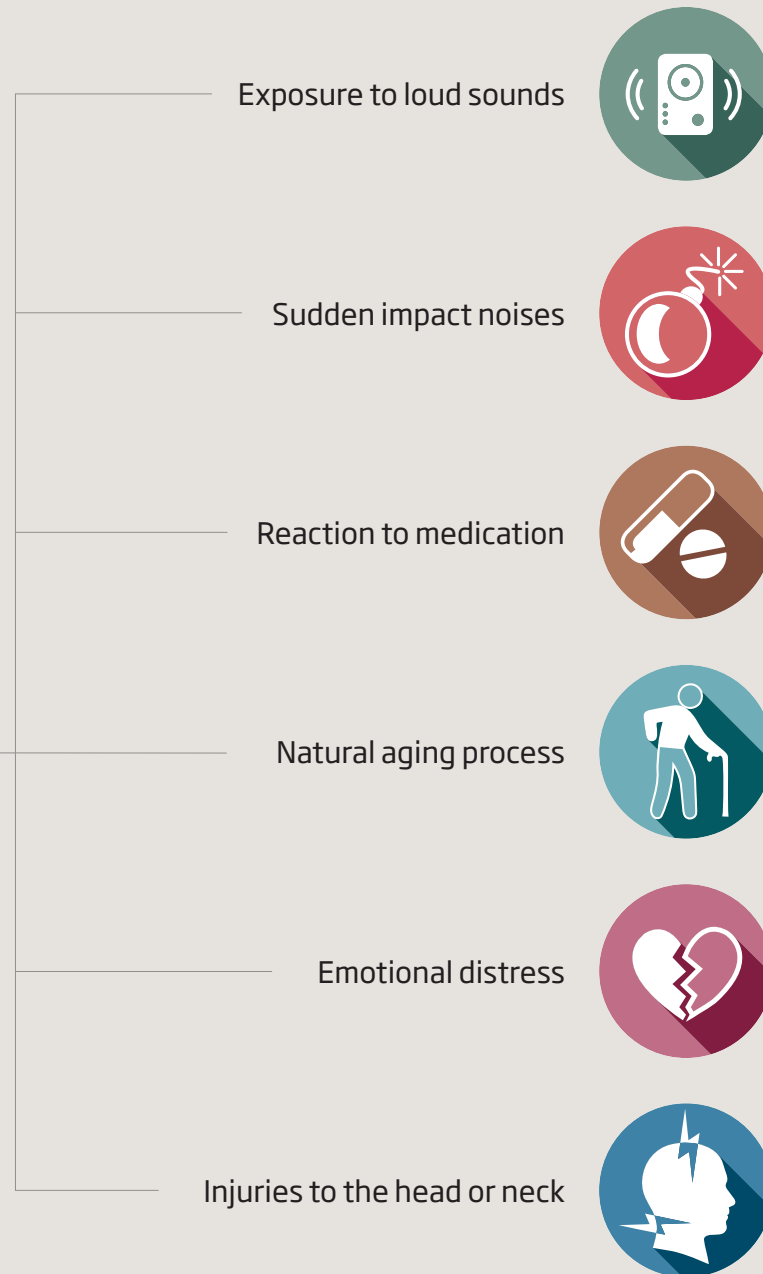


Teamwork is key. Successful treatment requires  
a strong partnership and commitment

# How tinnitus starts

Tinnitus can start anywhere from the ear to the brain.





# The cycle of distress







You first notice the tinnitus. You may notice it like you would notice a small, continuous drip from the kitchen faucet.



The sound becomes obtrusive. It sets off a subconscious alarm in your brain.



You have a negative emotional response. You are distressed.



You may have a physical response (rapid heartbeat, muscle tension or sweaty palms) to your distress.



Your body's response means you focus even more on the sound and it starts to sound worse.

# The violin and the orchestra

Tinnitus treatment through sound therapy helps you to blend the tinnitus into the background along with other sounds so you don't hear it as much.



Your tinnitus in a quiet room



Your tinnitus with other sounds

# Sound therapy





**Hearing aids:** small devices for the ears that amplify sound. More sound makes your tinnitus stand out less



**Listening exercises:** can help the patient learn to focus on sounds other than tinnitus



**Music:** soothing music or nature sounds can reduce the contrast between tinnitus and quiet environments



**Audio books:** can for some, provide just the right mix of sound, brain stimulation and comfort



**Combination devices:** hearing aids with built-in sound generators that emit specific tinnitus relief sounds



**Relaxation and mindfulness:** yoga and meditation have proven to be particularly effective tools for relief



**Sound generator:** a stand-alone device for the bedside that can play various sounds to reduce tinnitus

# The treatment journey

There are three key steps in the introductory illustration. Although the steps are closely linked, it is important for the patient to understand the journey you are about to start together.

## Your starting point

Tinnitus treatment requires a motivated patient and a knowledgeable professional. It takes two to treat tinnitus – you and your patient with tinnitus. The more you understand the impact of tinnitus on your patient's life, the more you can help them achieve their goals. Taking the time to really listen to your patient will create a dialogue that becomes a partnership. The view of what you can offer and the outcome of treatment vary depending on their expectations and what expectations you set.

## Your treatment plan

From initial conversations with the patient, it is possible for you to assess what might work for your patient and what might not. The treatment plan should be developed according to the specific patient's needs, lifestyle and mutual understanding.

The key lies in finding the perfect combination of both counseling and technology that might be beneficial for each particular patient.

## Living with tinnitus

With work and commitment, there is light at the end of the tunnel. A strong treatment partnership will stand in contrast to the "learn to live with it" message that many tinnitus patients have heard so many times. As the picture shows, the goal is to push the tinnitus into the background and, in turn, make the perception of tinnitus less bothersome.



## How tinnitus starts

The following two illustrations are closely linked. The three circles on the man's head indicate where tinnitus can start: In the ear, in the pathways to the brain, or in the brain itself. Depending on the cause, tinnitus will have a different onset location.

As an example, hearing loss is associated with damage to the hair cells in the ear. In this case, tinnitus is triggered by events in the ear.

The exact mechanisms behind tinnitus are still not fully known. Presumably, any part of the auditory pathway, from the outer ear to the brain - can be involved in the onset of and continuation of tinnitus.





Exposure to loud sounds



Sudden impact noises



Reaction to medication



Natural aging process



Emotional distress



Injuries to the head or neck

## Causes

Below, we have listed a few of the reasons as to why tinnitus starts. A broad knowledge of the tinnitus causes will help you, the clinician, to evaluate your patient and to understand what individual treatment is needed in each particular case.

### Noise damage and hearing loss

Two of the more common causes of tinnitus are hearing loss (including age-related hearing loss) and noise exposure, which can also result in permanent hearing loss often accompanied by tinnitus.

### Medication

Certain medications can cause tinnitus either temporarily or permanently. After finishing prescribed treatment with a tinnitus-inducing drug, sometimes tinnitus can disappear, but for some patients, the tinnitus is there to stay. It may help you to learn the list of common medications that can cause and/or worsen tinnitus.

### Head and neck injuries

Damage to these areas can result in tinnitus that is temporary or permanent.

### Traumatic life event

Tinnitus can be triggered by an emotionally difficult event in life such as the death of a loved one or severe stress. In these cases, the cause is not damage to the hair cells, but rather poorly understood emotional mechanisms in the brain.



## The cycle of distress

Building on the previous page, use this illustration to explain that once the tinnitus has started, it often leads to what is referred to as the “Cycle of distress”. Below you will find a script of how you could explain the cycle of distress to your patients.

- “Tinnitus can be like a small drip from the kitchen faucet. At first, you hear the drip but you can ignore it. After a while, the drip starts to get on your nerves and it becomes harder and harder to ignore”.
- “When you cannot ignore it, a subconscious alarm goes off in your brain. Your brain is telling you that this sound is unwelcome. You start thinking about it more and more”.
- “Your reaction to it becomes more emotional (limbic system). You have a negative emotional reaction to the sound. You become distressed (anxious, unhappy). You are unsure of what to do and how you will make the sound go away.”
- “Your body reacts physically to the negative emotions. This is the autonomic nervous system kicking in. Your heart rate increases, your breathing changes, your palms sweat.”
- “Your emotions and your bodily reaction result in even more focus on the water dripping. The awareness of the drip increases. The drip becomes more distressing. Your reaction to the drip causes the alarm to go off and the cycle repeats.”

## The violin and the orchestra

The goal of tinnitus treatment is to make tinnitus less noticeable and less bothersome. This illustration explains, in a simple way, how we attempt to reach this goal.

- Tell your patient to imagine a solitary violin playing in an empty room. It is the only sound they can hear. The tinnitus can be like this violin, attracting their full attention.
- Tell your patient that, over time and through treatment, tinnitus will become less noticeable. This is just like the violin when joined by a room full of instruments. If we listen hard, we can identify the violin, but otherwise it does not stand out.
- Tell your patient that together you will create a course of treatment that can help their tinnitus become less noticeable. That is, the goal is to give your patients the right tools to manage their tinnitus.





## Sound therapy

The final illustration provides an introduction to sound therapy options. You can select different options together with the patient. Sound therapy is the systematic use of sound to help relieve suffering from tinnitus in different situations. Sound therapy and counseling complement each other for the best results.

**Hearing aids:** When environmental sound is heard better, tinnitus may be less noticeable. With more sound, the tinnitus may move to the background, as in the example with the violin.

**Combination devices** are hearing aids with special sound programs for tinnitus. If hearing aids alone do not provide the necessary relief from tinnitus, additional sound from the hearing aids can be used. These devices have different types of sounds built into the hearing aid, for example, a steady noise called broadband noise and ocean sounds. There are multiple sounds and fine-tuning options available, to accommodate the individual's sound preferences.

**A sound generator** is a device for the bedside or tabletop that can play sounds to help move tinnitus to the background.

**Listening exercises** can help the patient learn to focus on sounds other than tinnitus. An example is: Ask your patient to select a location, such as a street corner or restaurant or your home. Pay attention to the many different sounds that surround you. How many different sounds do you hear? Which sounds do you like? Focus on three separate sounds for 10-30 seconds at a time.

When attention is drawn to specific sounds in the environment, the annoyance of tinnitus can be decreased. Simple listening exercises like this can be quite effective.

**Relaxation exercises** can be part of a treatment as well. Muscle relaxation and breathing exercises are commonly used. Your patient can find many app-based or online resources to aid relaxation.

**Audiobooks:** In recent years, audiobooks have become an additional source of sound therapy. The mixture of sound and brain stimulation can remove the perception of tinnitus without the need for adding underlying noise.





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