

ReSound Tinnitus Management



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1869

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MANUFACTURED
IN DENMARK,
UNITED STATES,
CHINA, MALAYSIA
AND THE UK

5,500
EMPLOYEES

*"The development of the
world is dependent on
communications"*

GN founder C.F. Tietgen, 1869

CREATED THE FIRST
**TELEGRAPHIC
CONNECTION**
BETWEEN ASIA
AND THE REST OF
THE WORLD



Intelligent audio solutions
that let you **hear more, do more**
and **be more** than you ever
thought possible

**MARKETS HEARING AIDS
& HEADSETS IN
100 COUNTRIES**

RESEARCH CENTERS
IN DENMARK, UNITED STATES, CHINA
AND THE NETHERLANDS

More than **8% of our revenue** goes into research and development of **new innovations**



The GN Group proudly builds on over 150 years of innovation



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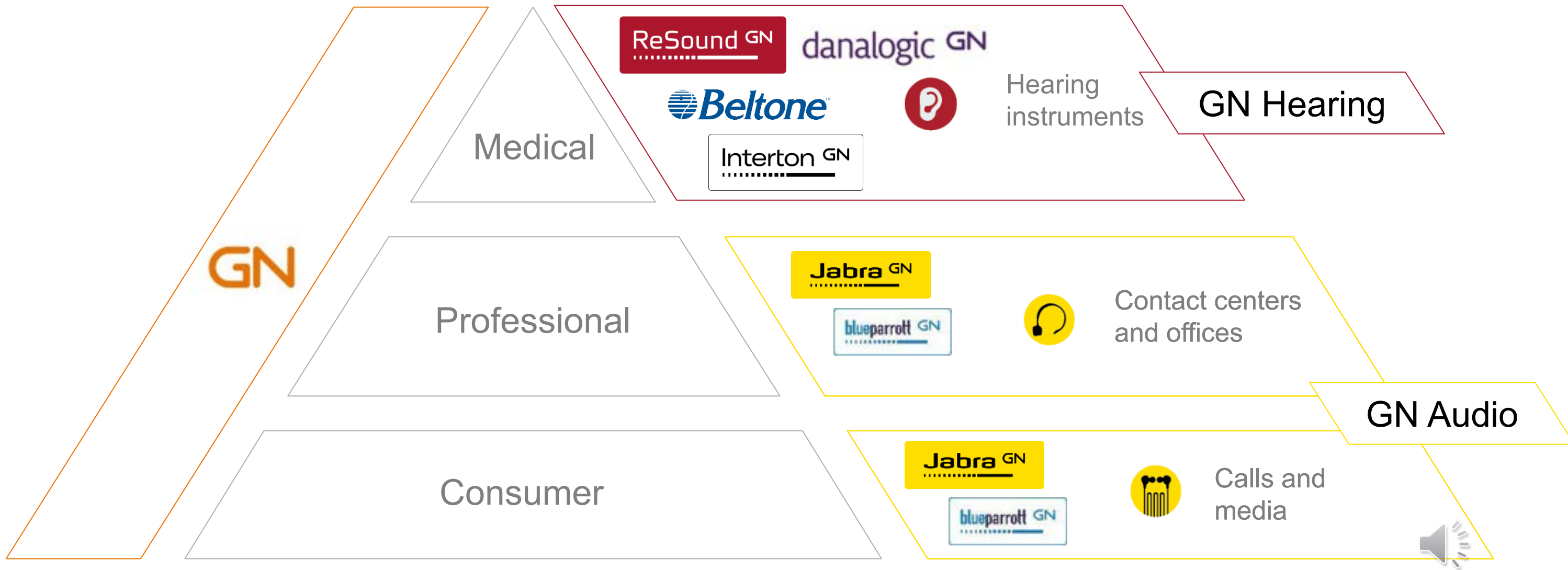
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World leading sound and audiology expertise – all under one roof



ReSound Tinnitus Management

Tinnitus affects around 10% of the population, with 3-5% suffering from clinically treatable tinnitus. As hearing loss diagnosis increases, this trend is likely to continue growing. ReSound offers an advanced combination unit of hearing aid and Tinnitus Sound Generator (TSG), providing fitting flexibility for clinicians and an innovative TSG solution for patients.



Understanding Tinnitus

Definition

Involuntary perception of sound originating in the head (McFadden, 1982) , often described as 'ringing or buzzing sounds'

Characteristics

Can be constant or intermittent, with varying perceptual characteristics like clicking, chirping, or pulsing

Causation

Exact mechanism unknown, but cochlear damage and psychological factors play significant roles



Tinnitus Treatment Approaches

Sound Therapy

Introduction of external sounds to reduce tinnitus contrast against background. ReSound TSG (Tinnitus Sound Generator) combination unit offers hearing aid features and tinnitus sound generator capabilities.

Tinnitus Retraining Therapy (TRT)

Educates clients on neurophysiologic foundations of tinnitus, aiming to provide better understanding and control over reactions to tinnitus. Sound therapy is a vital component of TRT.



ReSound TSG Combination Unit Features



Frequency Shaping

Customizable white noise signal with low and high cut controls for individualized comfort



Amplitude Modulation

Fluctuation in noise signal level with adjustable attenuation and speed options



Environmental Steering

Automatic volume control adjusting white noise level according to the listening environment



Right



Left



ReSound Nexia 9
NX960S-DRWC
MP Receiver
SN: 2387120866

Connect To ReSound Smart Fit

Remote Fitting

Simulate Session



ReSound Nexia 9
NX960S-DRWC
MP Receiver
SN: 2387120871



Patient Information ^

Patient Instrument Set-Up Gain Adjustments **Advanced Features** Device Controls Finalize

Menu

Speech

Comfort

Tinnitus Sound Generator

CROS

Tutorial
ReSound 2.0

First Time User - Onboarding

Instruments ^

Connect

Right

Not Connected

Left

Not Connected

NX960S-DRWC
RIE 2 MP Receiver

Mute

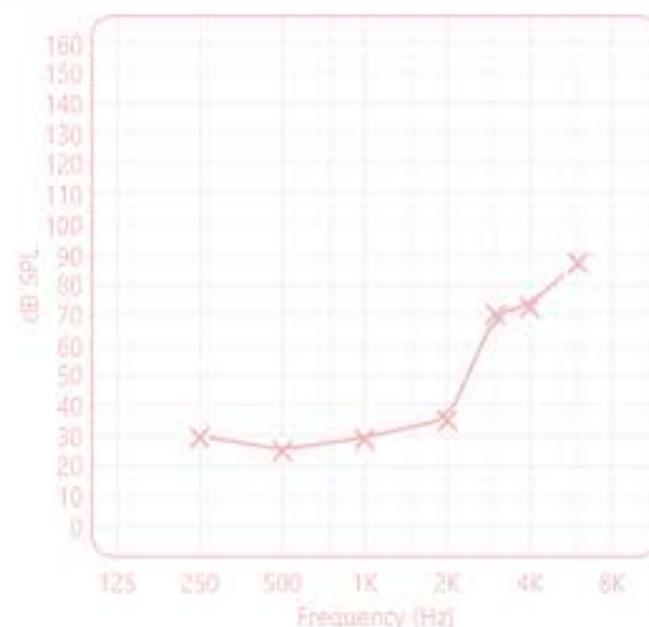
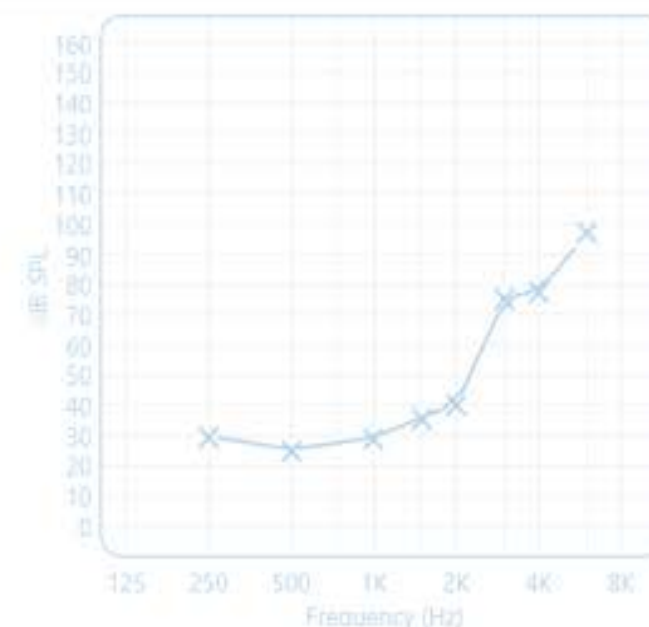
NX960S-DRWC
RIE 2 MP Receiver

Mute

Media Player v

« Collapse Sidebar

ReSound GN

☒ dB SPL☐ dB HLAll-Around Hear in Noise **Outdoor** +Tinnitus Sound Generator ☒ On ☐ OffNature Sounds ☒ On ☐ Off

Stereo Off ⓘ

Show Advanced Settings v



Breaking Waves



Water Creek



Calming Waves



Beach surf



Ocean



Shoreline

Ear to Ear
Synchronization☒ On ☐ OffTinnitus Sound Generator ☒ On ☐ OffNature Sounds ☒ On ☐ Off

Stereo Off ⓘ

Show Advanced Settings v



Breaking Waves



Water Creek



Calming Waves



Beach surf



Ocean



Shoreline

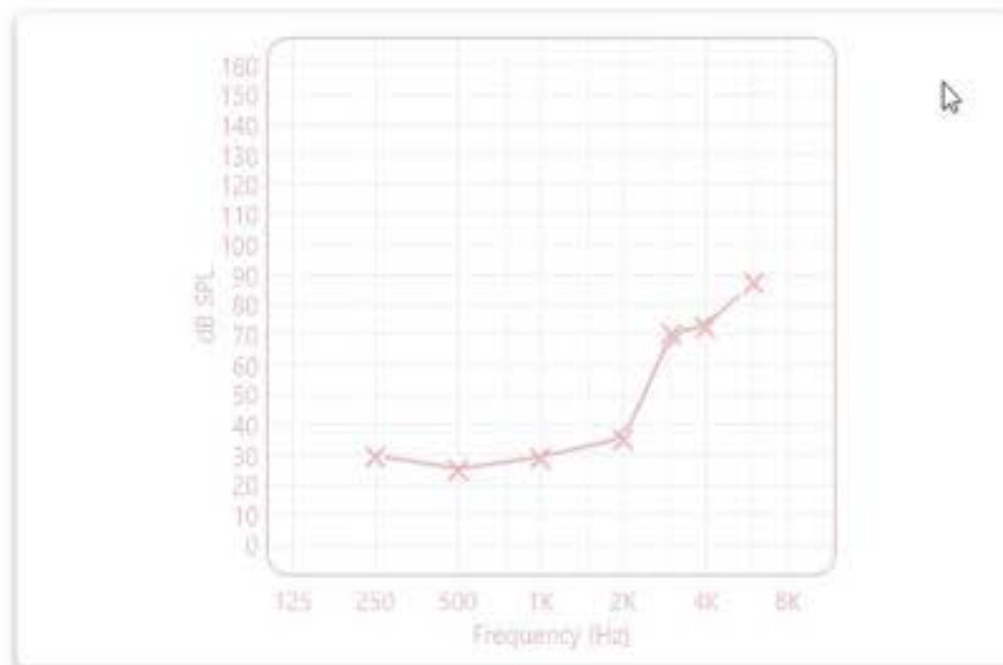
Calibrate DFS

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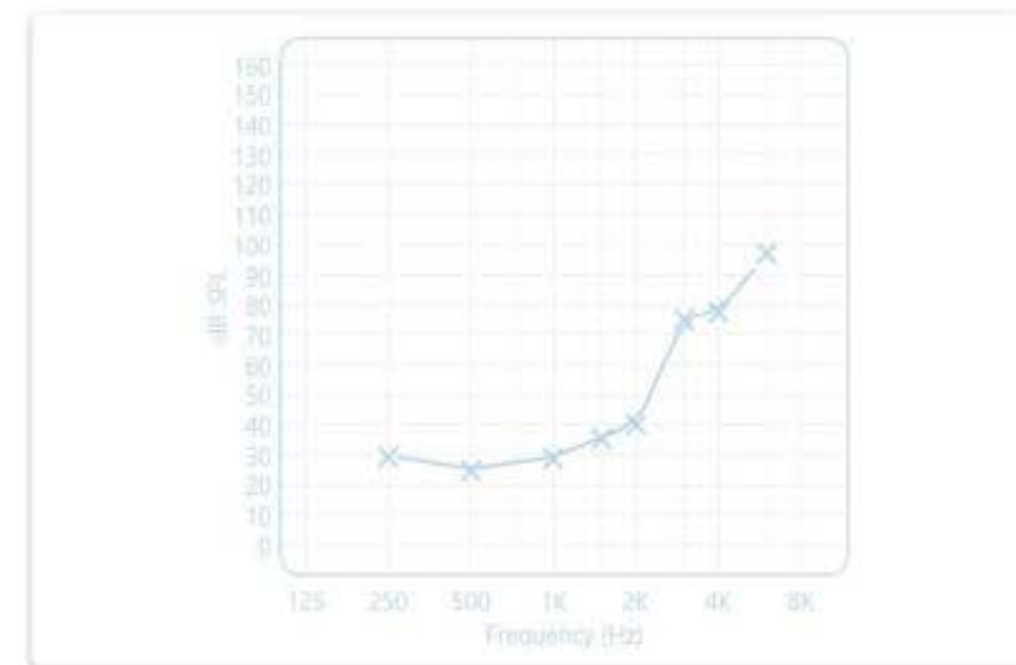
Patient Information ^

Patient | Instrument Set-Up | Gain Adjustments | **Advanced Features** | Device Controls | Finalize

Menu

Speech | Comfort | **Tinnitus Sound Generator** | CROS

☒ dB SPL
☐ dB HL

All-Around | Hear in Noise | **Outdoor** | +Tinnitus Sound Generator ☒ On ☐ OffNature Sounds ☒ On ☐ Off
Stereo Off

Show Advanced Settings v

Ear to Ear
Synchronization☒ On ☐ OffTinnitus Sound Generator ☒ On ☐ OffNature Sounds ☒ On ☐ Off
Stereo Off

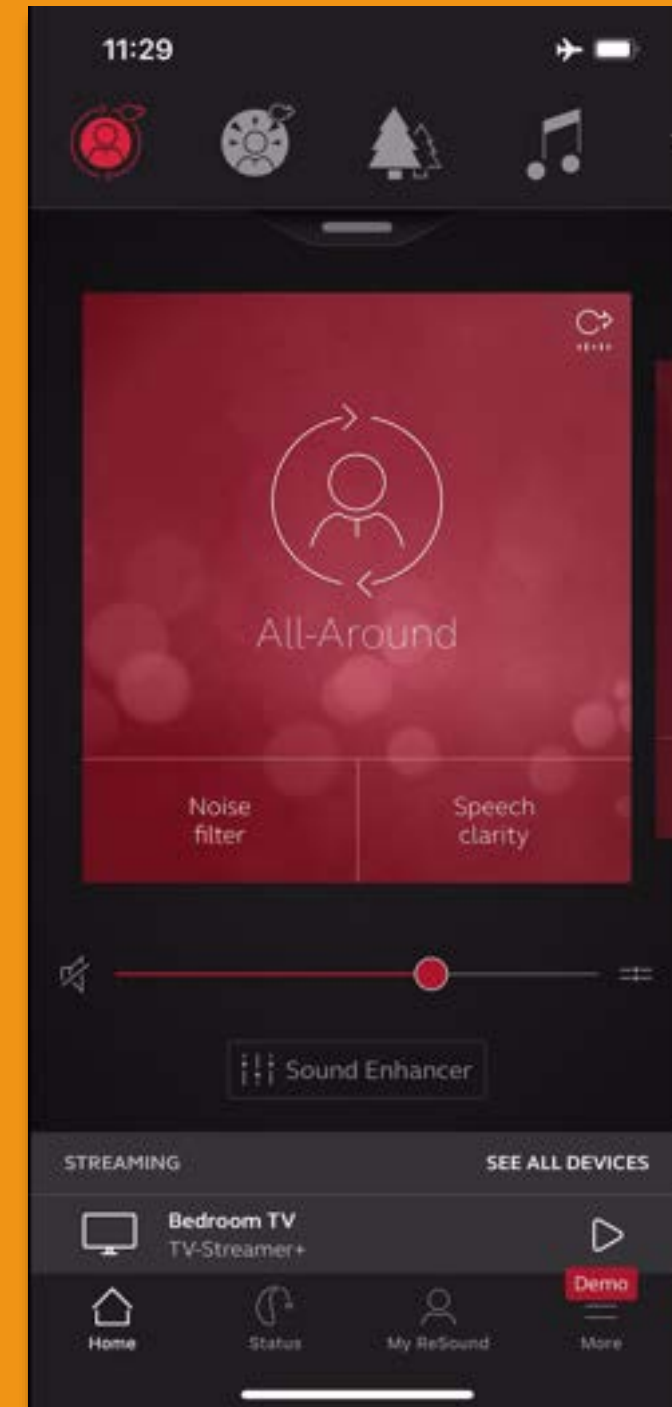
Show Advanced Settings v



Calibrate OFS

Save

ReSound Smart 3D App and TSG



White Paper

- [Features Explained - GN Hearing UK](#)
- <https://www.gnhearing.com/en-gb/research/features-explained>

ReSound Tinnitus Management: ReSound TSG and Tinnitus Management

Michael Piskosz, M.S., Board Certified in Audiology
Snehal Kulkarni, Au.D.

Tinnitus is a concern for many people, and affects around 10% of the overall population, with approximately 3-5% of the population suffering from clinically treatable tinnitus (McFadden, 1982). As hearing loss is increasingly identified and diagnosed, this trend is most likely to continue and grow (Vernon, 1998). Clinicians and people affected by tinnitus have struggled finding flexible tinnitus treatment devices that are suitable components of a tinnitus treatment and counseling support program. ReSound offers an advanced combination unit of hearing aid and Tinnitus Sound Generator (TSG), that provides fitting flexibility for clinicians, and an innovative TSG solution for. It can be used as a combination unit to address both hearing loss and tinnitus.

WHAT IS TINNITUS, AND WHAT CAUSES IT?

Tinnitus is an involuntary perception of sound that originates in the head (McFadden, 1982). It is most commonly referred to as 'ringing in the brain', but can take on a number of perceptual characteristics, such as clicking, chirping or pulsing. It can be constant and steady, or it can be intermittent. The perception of tinnitus can greatly vary from person to person.

fied and recognized as noise, even in the absence of auditory input. This noise is recognized as tinnitus (Figure 1).

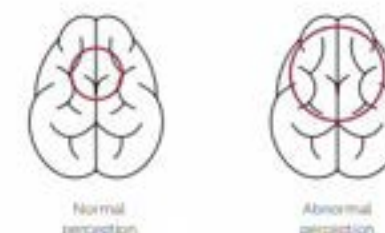


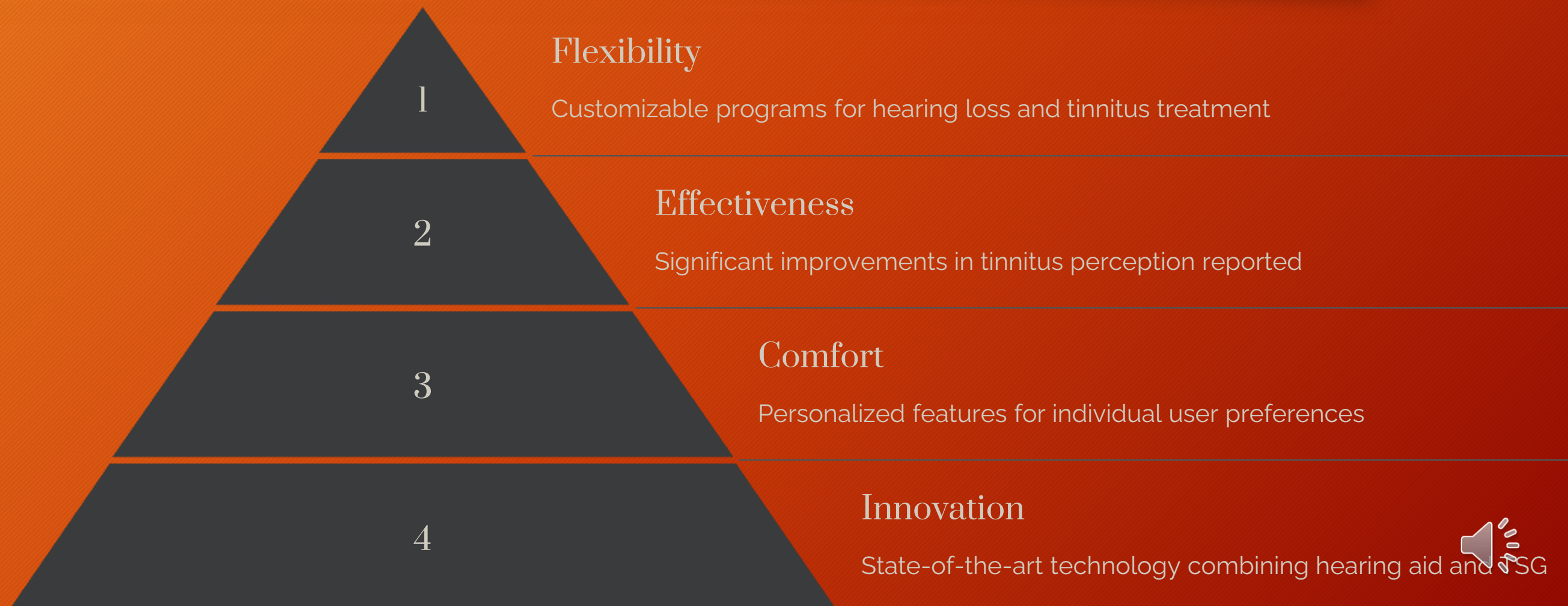
Figure 1. Abnormal tinnitus perception due to outer hair cell damage.

Tinnitus does not seem to be limited to OHC damage alone, as it seems IHC damage can also play a role in the generation of tinnitus. This suggests that there are additional mechanisms that are also responsible in tinnitus generation beyond OHC damage (Jastreboff & Hazell, 1993). There are other theories as to the mechanisms that may be causing tinnitus, but it is not the intention of this paper to discuss all of them.

The strength of a person's tinnitus is not only due to cochlear damage, but to the focus that one puts on the tinnitus. This is called 'prioritization'. The more focus, or priority, a

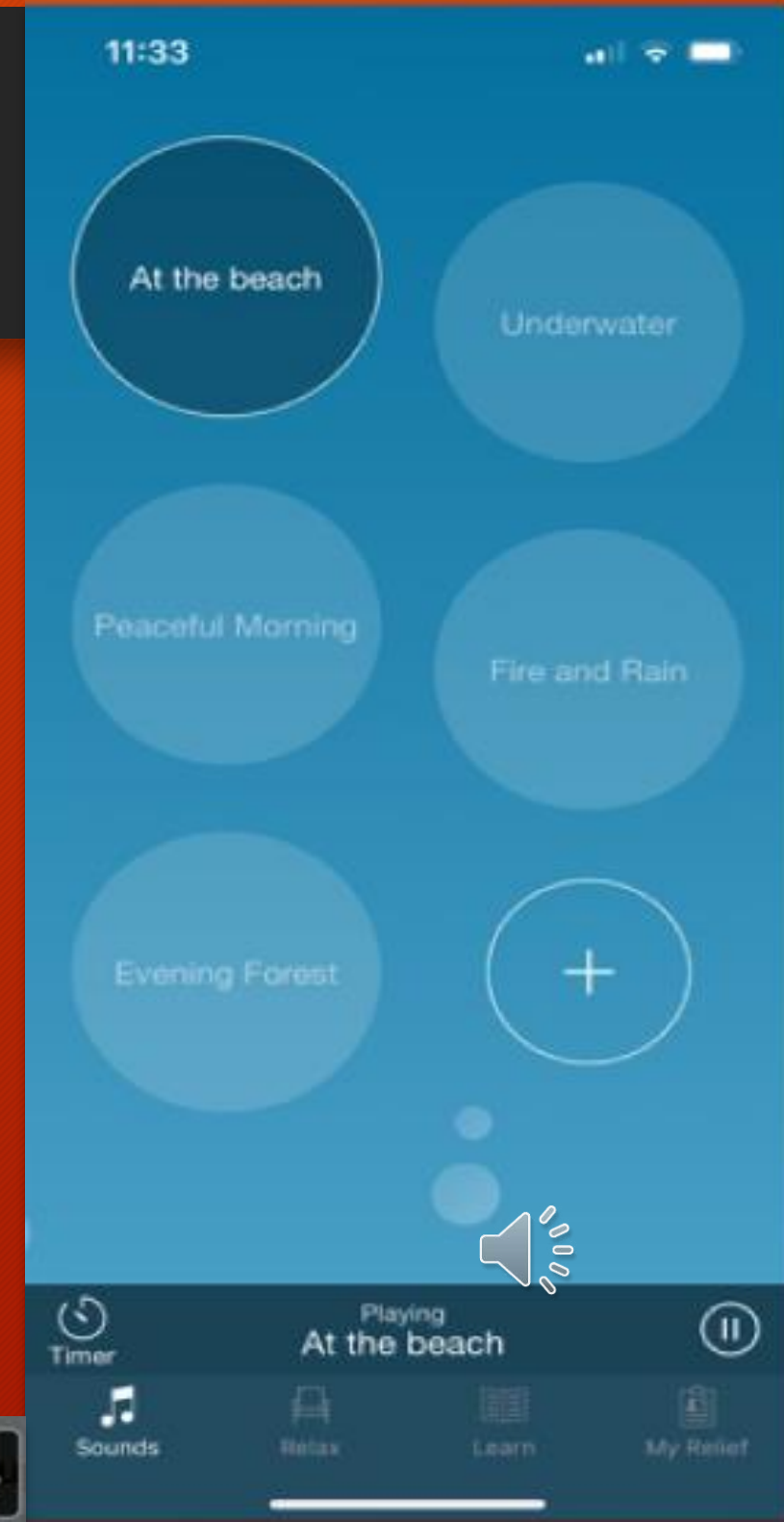


ReSound TSG Combination Unit Benefits



ReSound Tinnitus Relief App

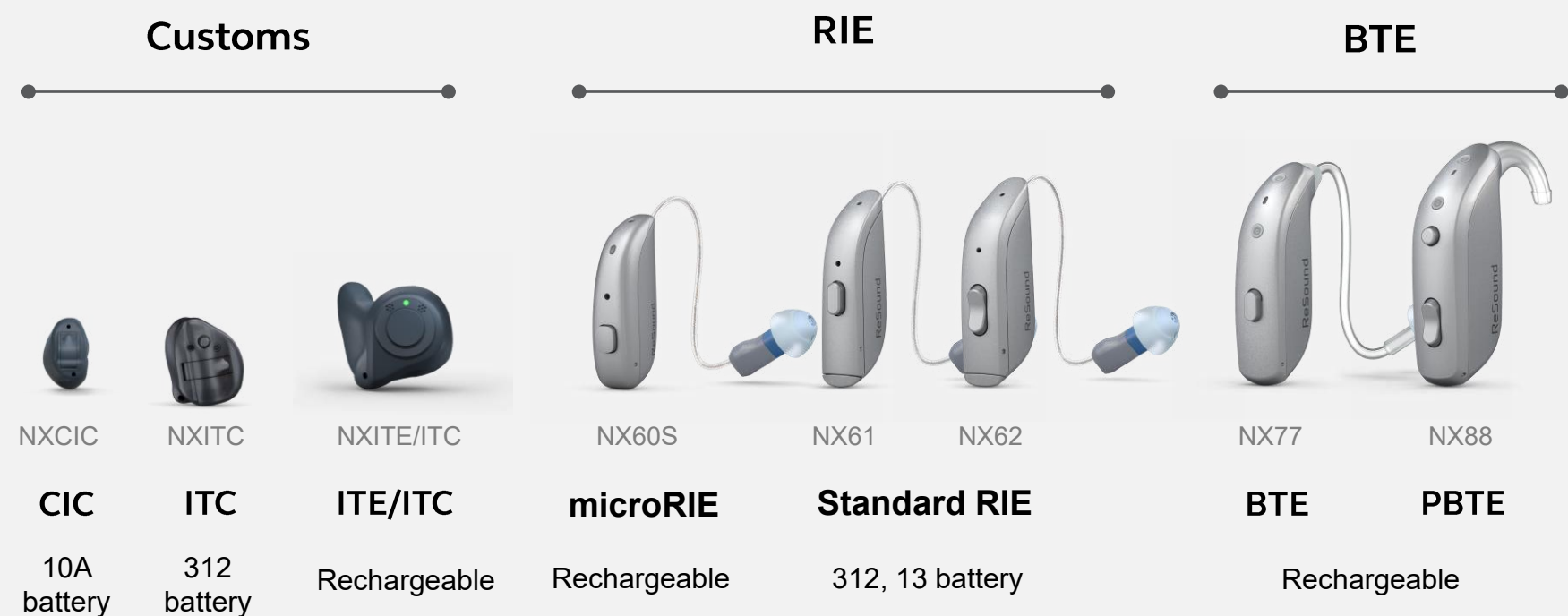
The ReSound Relief app is one of the most useful hearing aid apps in the market for relieving and managing tinnitus. As part of a tinnitus management program, the ReSound Relief app offers a combination of sound therapy, relaxing exercises, meditation, and guidance, whenever you want and wherever you are.



ReSound Tinnitus Relief App



Tinnitus Management Available in ALL STYLES



In price points 9, 7, 5



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Thank You!

