

NAILED IT! VERIFYING WIDEX UNIQUE 440 WITH THE AURICAL PMM SYSTEM

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INTRODUCTION

- Class Description
- In a joint presentation given by Widex and Audiology Systems, the importance of Probe Microphone Measurements (PMM) as well as the different types of verification testing the Aurical PMM can performed. In addition – four signature features in the Widex Unique 440 hearing aids will be discussed and verified using the Aurical PMM System.



LEARNING OBJECTIVES

- Participants completing this course will be able to:
 1. Identify two reasons why PMM testing plays an important role in hearing aid fittings
 2. Identify three different testing protocols for PMM testing
 3. List the benefits of three Widex signature features



AGENDA

- 5 minutes – Introductions
- 10 minutes – Why Verify and Overview of the Auricle PMM
- 10 minutes – Widex Fitting Rationale and Verification
- 10 minutes – Widex RT Speech Enhancer and Verification
- 10 minutes – Widex Audibility Extender and Verification
- 10 minutes – Widex CROS and Verification
- 5 minutes – Conclusion and Questions



WHY **VERIFY?**

- "How does it sound?" is no longer enough
- Verification demonstrates audibility and comfort
- Verification can provide evidence that special features are working correctly
- It saves the patient and clinician time
- Third party payors expect it
- To adhere to professional standards of "Best Practices"



AURICAL **PMM**

Probe Microphone Measurements



STREAMLINED APPROACH TO ENHANCE WORKFLOW



WIDEX
HIGH DEFINITION HEARING

PRESCRIPTIVE TARGETS AVAILABLE IN PMM

Fitting Details

Target Rule: **DSL v5.0** (selected)
Fitting Mode: **NAL-NL1** (selected)
Applied REUG: **NAL-NL2** (selected)
Manual
DSL v4.2

Date of Birth: 02/02/61

Applied RECD: Predicted (DSL 5.0)

H.I. Type: BTE

Transducer: Insert Tip

Venting: None

Use Bone Conduction: No

Amplification: Binaural

Applied UCL: Predicted

☐ Use OpenREM calibration

☐ Show for each new client

>> Advanced Setting

Apply Close Help

WIDEX
HIGH DEFINITION HEARING

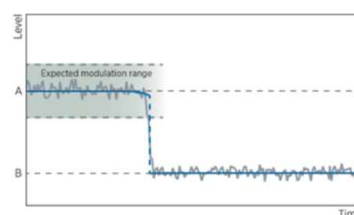
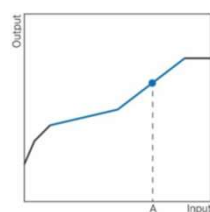
WIDEX UNIQUE 440 FITTING RATIONALE

Variable Speed Compression



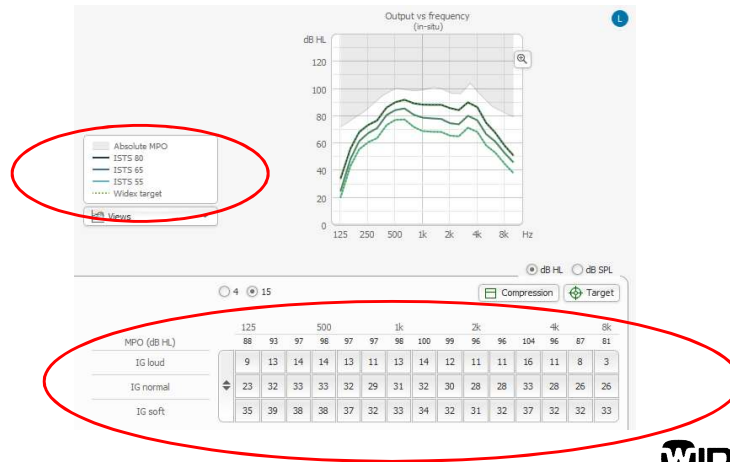
WIDEX UNIQUE VARIABLE SPEED COMPRESSION

- Benefits
 - A transparent and natural sound quality
 - Stable sound delivery even with large input level changes
- Slow acting compression (EDRC) within an existing environment
- Immediate adjustments to new environments to preserve audibility



WIDEX UNIQUE ENHANCED DYNAMIC RANGE COMPRESSION

- Insertion Gain at 55, 65 & 80



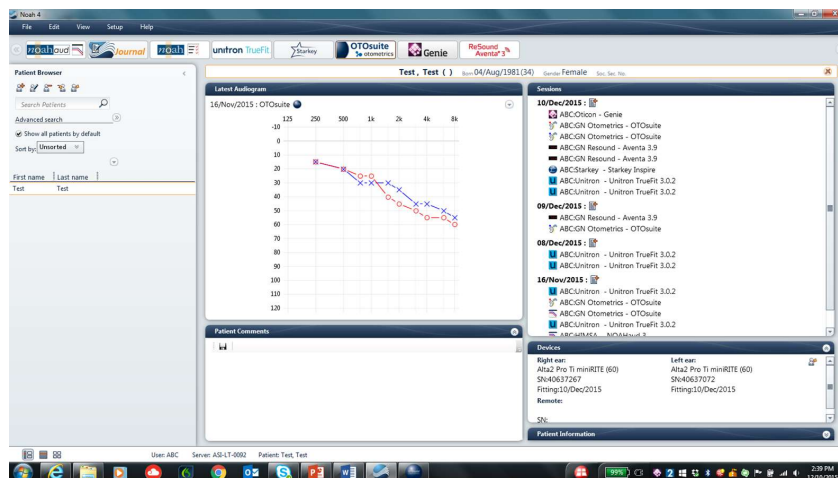
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WIDEX FITTING RATIONALE LIVE DEMONSTRATION

Enhanced Dynamic Range Compression

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AUDIOGRAM USED



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WIDEX FITTING PROTOCOL

- Leave the default to NAL-2 in Otosuite, leave the aids in the proprietary fitting formula in Compass
- Set soft speech, average speech, and loud speech to 55 dB, 65 dB, and 80 dB to match their input levels.
- Run MPO
- Adjust accordingly.

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HIGH DEFINITION HEARING

WIDEX UNIQUE 440 REAL TIME SPEECH ENHANCER

Simulating "Selective Hearing"



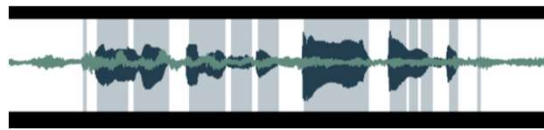
WIDEX REAL TIME SPEECH ENHANCER

- Benefits
 - Concentrate on and follow speech, even in a noisy situation.
 - Greater comfort in noisy environments when speech is not present.
- Calculations are based on a statistical analysis of voice & unvoiced speech and the Speech Intelligibility Index
- Applies optimal gain for speech understanding
- Precise activation of noise reduction



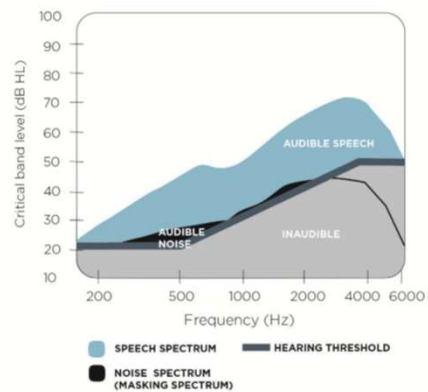
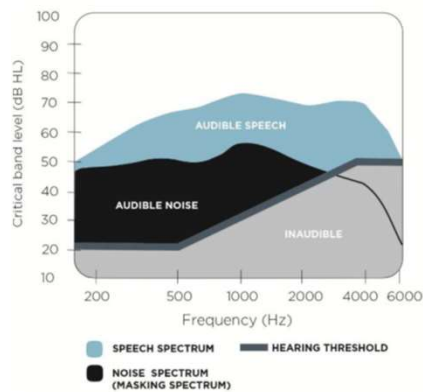
OPTIMAL GAIN FOR SPEECH UNDERSTANDING

- Real Time Speech Enhancer only adds extra gain to dominant speech, not background speech babble.



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AUDIBLE NOISE IS MINIMIZED



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HIGH DEFINITION HEARING

REAL TIME SPEECH ENHANCER LIVE DEMONSTRATION



WIDEX UNIQUE AUDIBILITY EXTENDER

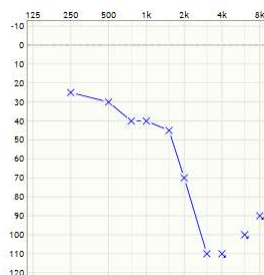
FREQUENCY LOWERING



THE CHALLENGE

HIGH FREQUENCY DEAD REGIONS

- Benefits
 - Improve speech perception and production for those with severe to profound high frequency hearing loss
 - Quick patient acceptance of sound quality



WIDEX
HIGH DEFINITION HEARING

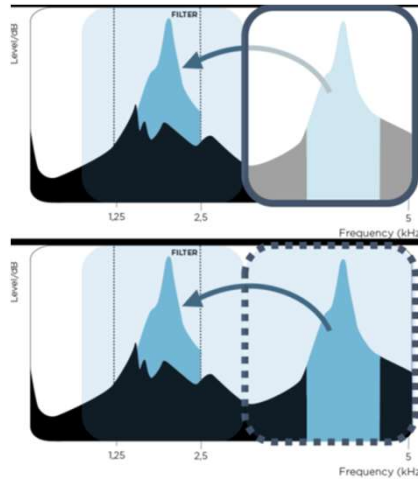
WIDEX UNIQUE

AUDIBILITY EXTENDER

- Linear transposition moves inaudible high frequency information down to an audible region.
- The most significant sound is automatically selected
- It is active for both voiced and voiceless signals.
- Harmonic relationships are preserved.
- The transposed signal is mixed with the underlying signal to preserve a rich and more natural sound perception.

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WIDEX AUDIBILITY EXTENDER FREQUENCY LOWERING



“Cut and Paste”

“Copy and Paste”

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AUDIBILITY EXTENDER LIVE DEMONSTRATION

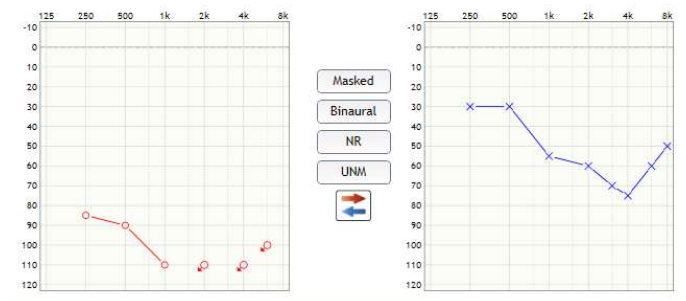


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WIDEX UNIQUE CROS & BICROS



WIDEX CROS & BICROS



WIDEX
HIGH DEFINITION HEARING

WIDEX CROS & BICROS SYSTEMS

- Broad frequency response in transmitted signal
- On/off control
- Adaptive directionality or omni transmitter microphones
- Excellent battery life



WIDEX
HIGH DEFINITION HEARING

WIDEX UNIQUE CROS & BICROS

- Benefits for those with single sided deafness
 - Reduces negative impact of head shadow effect
 - Improves intelligibility of speech in noisy situations
 - Enhances ease of communication in many everyday situations

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HIGH DEFINITION HEARING

WIDEX CROS LIVE DEMONSTRATION



SUMMARY

- Comfort and audibility are easily assessed with the Aurical PMM.
- At the audiogram based fitting, Widex Rationale requires minimal adjustments to match NAL NL2 targets.
- Verification confirms that hearing aid features are performing as expected.
 - Speech Enhancer with Noise Reduction
 - Audibility Extender
 - CROS/BICROS



QUESTIONS?

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