

Welcome To
Effortless Hearing

Options for audio include computer speaker or dial-in at 02 8518 1923 / Access Code: 2457 504 3611.
For technical questions or log-in information please contact Vincent Santana at 0413 834 718 Vincent_Santana@starkey.com.au



Hear better. Live better.

Welcome To
Effortless Hearing


The webinar will start in...
00:05:00

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Effortless Hearing

Judy Grobstein, Au.D., MACAud
Manager of Education and Audiology



Webinar FAQs

Effortless Hearing

If not using speakers and you haven't already, please call into the call center number 02 8518 1923 and enter access code 2457 504 3611

Please be sure to keep microphones muted

If you have any technical issues, please contact Vincent Santana at vincent_santana@starkey.com.au or call him direct at 0413 834 718

If you have any questions, please type them in the chat box. You can view the chat box by clicking the chat bubble at the bottom of your screen

Participants Chat ...

WebEx Control Panel

Endorsed Session

Effortless Hearing

This Session is endorsed for ACAud, AudA and HAASA points

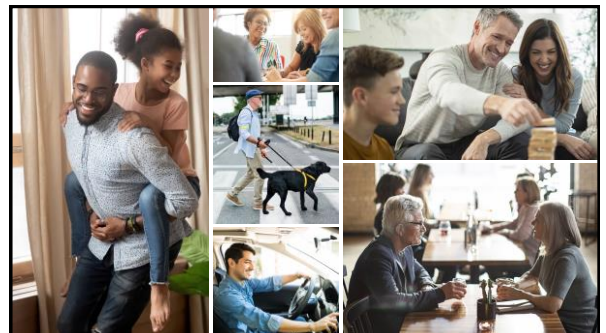
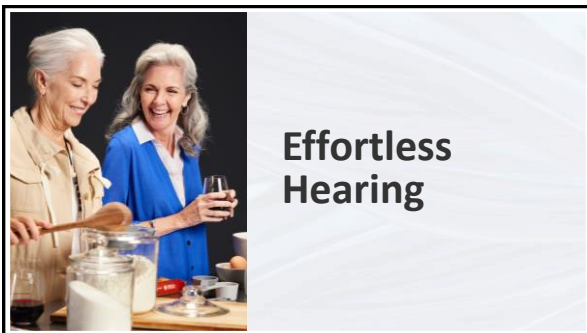
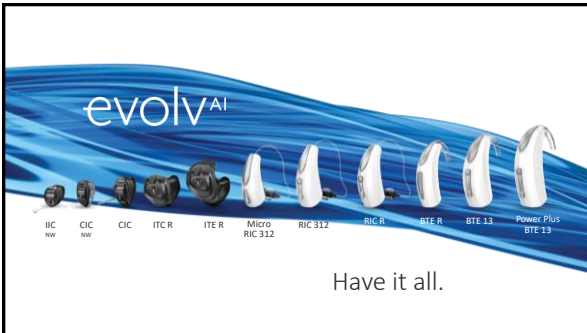
You must stay logged on for the full session

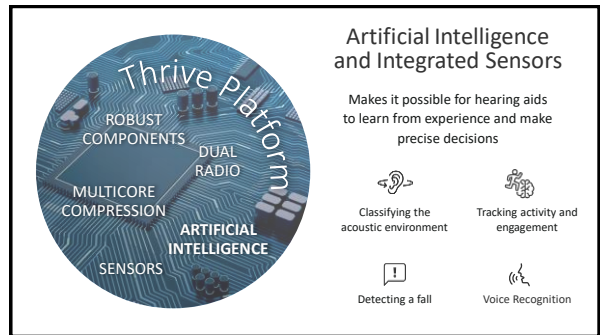
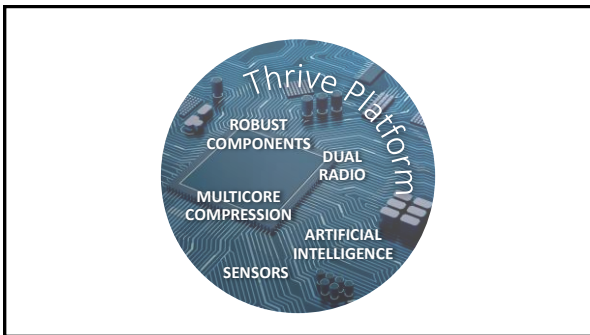
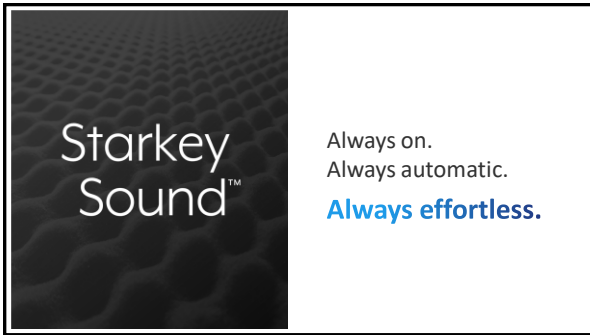
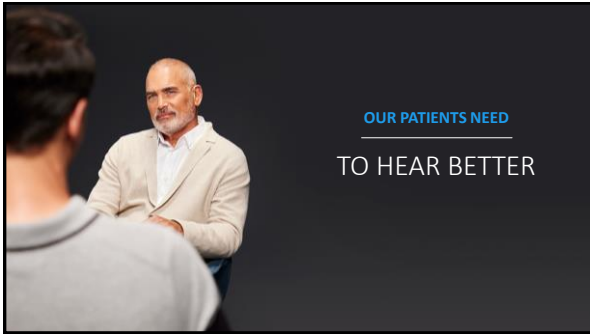
AudA members must complete a 10 questions quiz with a passing score of 70% as well as your CPD Reflections and Evaluations

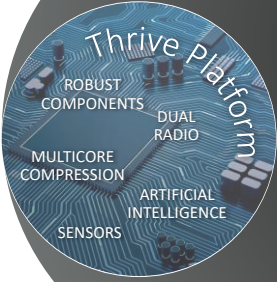
ACAud, HAASA and NZAS members must complete the quiz to receive full points.

Learning Objectives

- Participants will be able to discuss how Starkey Sound™ leads to effortless hearing for your patients
- Participants will be able to identify the benefits of Edge Mode
- Participants will be able to discuss unique fitting considerations for specific Evolv AI product styles





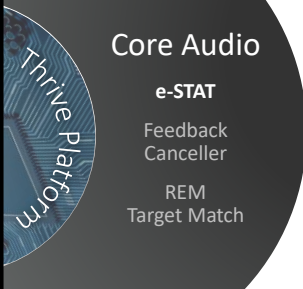


Thrive Platform

ROBUST COMPONENTS
DUAL RADIO
MULTICORE COMPRESSION
ARTIFICIAL INTELLIGENCE
SENSORS

Core Audio

- eSTAT
- Feedback Cancellor
- REM Target Match



Thrive Platform

Core Audio



- e-STAT
- Feedback Cancellor
- REM Target Match

e-STAT
Starkey's Proprietary Fitting Formula

- Emphasizes audibility for speech understanding
- Developed for Starkey's proprietary compression architecture
- Models processing of the human ear
- Optimizes response modeling regardless of hearing aid style
- Optimizes vent hearing aid interaction

e-STAT
Starkey's Proprietary Fitting Formula

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Thrive Platform

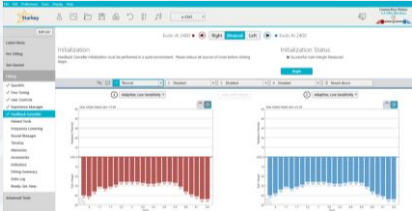
Core Audio

- eSTAT
- Feedback Cancellor**
- REM Target Match

Feedback Cancellor

- Automatically applies **personalized feedback cancellation sensitivity settings** for all memory environments AND provides a **feedback free start** for every fitting

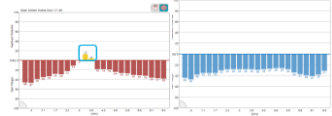
Feedback Cancellor



Feedback Cancellor

Gain Margins

- Active in up to 24 bands
- Up to 25dB adds stable gain (open fit)
- No gain cap or reduction




Gain Margin: Number of dB programmed gain is below maximum stable gain

Feedback Canceller

Starkey has three feedback canceller settings

- Adaptive, Low Sensitivity
- Adaptive, High Sensitivity
- Off

This allows the professional to optimize performance and sound quality for each patient per memory




Core Audio

- e-STAT
- Feedback Canceller
- REM Target Match

REM Target Match

A streamlined process for automatically matching real ear targets to provide an accurate and efficient fitting experience




Core Audio

- e-STAT
- Feedback Canceller
- REM Target Match

REM Target Match

- Fully integrated workflow via the REM Target Match Tool
- Allows for live display of simultaneous binaural real ear measurements relative to target
- Automatic target matching for both the e-STAT proprietary and standard prescriptive formulas
- Allows for manual fine tuning to further personalize a fitting as needed




Core Audio

- e-STAT
- Feedback Canceller
- REM Target Match

REM Target Match


- An ISTS (International Speech Test Signal) speech signal is used for the aided measurements
- Aided measurements are always completed in the Normal program
- Hearing aids are automatically set to omnidirectional and all features are off
- Targets are matched from 250-5000 Hz




Core Audio

- e-STAT
- Feedback Canceller
- REM Target Match

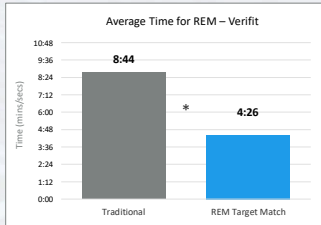
REM Target Match



Speeds up fitting and leaves more time for counseling

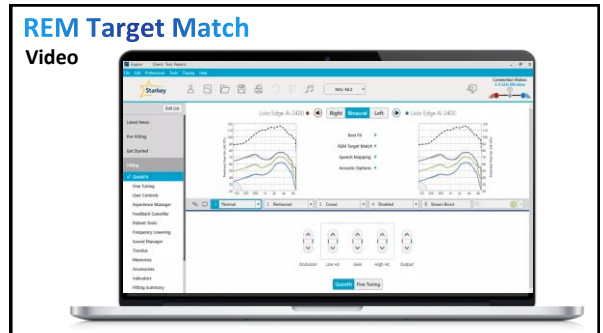


REM Target Match can be done in half the time of traditional real ear measurements



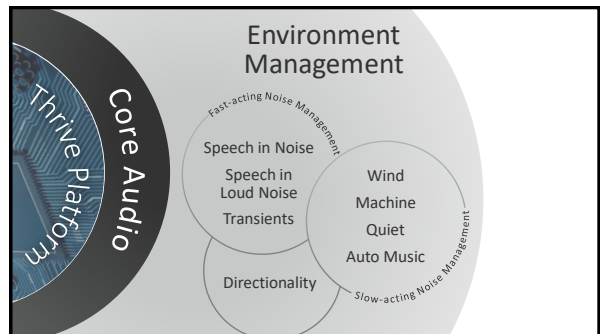
| Method | Time (min:sec) |
|------------------|----------------|
| Traditional | 8:44 |
| REM Target Match | 4:26 |

* = p < 0.001



REM Target Match Fitting Report

- REM Target Match measurements available in **Fitting Report**
- Recommend enable **Noah Fast Data** through Inspire



Environment Management

Fast-acting Noise Management

Speech in Noise
Speech in Loud Noise
Transients

Wind Machine
Quiet
Auto Music

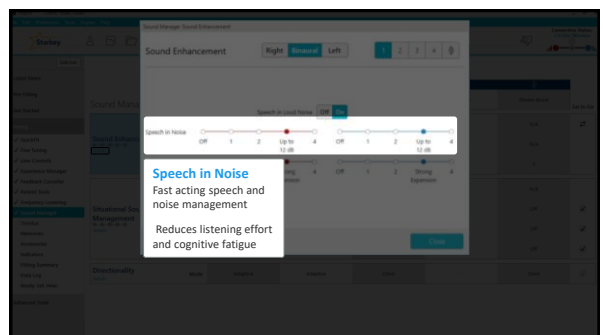
Directionality

Slow-acting Noise Management

Speech in Noise

Ultra fast processing to instantly track and filter noise even between the pauses of speech

Reduced listening effort



Starkey's Speech in Noise Feature

Modifies channel gain to reduce listener effort
 Significant cognitive benefits/
 reduced listening effort
 Less fatigue

Starkey has the most well researched digital noise reduction algorithm in any hearing aid

| Noise Reduction Condition | 75% Performance (dB HL) | 50% Performance (dB HL) |
|---------------------------|-------------------------|-------------------------|
| No NR | ~6.5 | ~10.0 |
| NR | ~3.5 | ~4.0 |

DeGardins & Doherty (2014)

Environment Management

Speech in Loud Noise

Fast-acting Noise Management
 Slow-acting Noise Management

Wind
 Machine
 Quiet
 Auto Music

Directionality

Speech in Loud Noise

- Reduces steady-state and dynamic background noise
- Reduces interfering sounds from the sides
- Preserves interaural level differences for localization

Speech in Loud Noise
 Reduces steady-state and dynamic background noise

Speech in Loud Noise

Provides a signal-to-noise ratio benefit over traditional noise reduction algorithms for speech in dynamic noise (e.g., speech in babble)

| Input SNR (dB) | Previous Generation (Acuity Voice) (dB) | Spatial Speech Enhancement (dB) |
|----------------|---|---------------------------------|
| -10 | ~0.5 | ~1.5 |
| -8 | ~1.0 | ~2.5 |
| -4 | ~1.5 | ~2.5 |
| 0 | ~1.7 | ~2.5 |
| 4 | ~1.5 | ~2.0 |
| 8 | ~1.4 | ~1.6 |
| 10 | ~1.4 | ~1.5 |

Harlanawala & Wozniak (2018)

Environment Management

Speech in Loud Noise

Fast-acting Noise Management
 Slow-acting Noise Management

Wind
 Machine
 Quiet
 Auto Music

Directionality

Improvements

NEW

Additional 2 dB of noise suppression for Speech in Noise and Speech in Loud Noise in all technology tiers

40%

REDUCTION in noise energy compared to Livio

Environment Management

Speech in Loud Noise

Fast-acting Noise Management
 Slow-acting Noise Management

Wind
 Machine
 Quiet
 Auto Music

Directionality

Improvements

NEW

Level 4 noise reduction now reaches its **maximum gain reduction threshold at 75dB SPL**

Speech in Noise Defaults

Livio Edge AI

| Speech in Noise Setting | OFF | 1 | 2 | 3 | 4 |
|------------------------------|-----|----------|----------|----------|----------|
| Max gain reduction threshold | OFF | 85dB SPL | 85dB SPL | 85dB SPL | 85dB SPL |
| Livio Edge AI 2400 | OFF | 6dB | 8dB | 10dB* | 20dB |
| Livio AI 2000 | OFF | 6dB | 8dB* | | |
| Livio AI 1600 | OFF | 6dB* | | | |
| Livio AI 1200 | OFF | 6dB* | | | |

* Default Settings

Speech in Noise Defaults

Evolv AI

| Speech in Noise Setting | OFF | 1 | 2 | 3 | 4 |
|------------------------------|-----|----------|----------|----------|----------|
| Max gain reduction threshold | OFF | 85dB SPL | 85dB SPL | 85dB SPL | 75dB SPL |
| Evolv AI 2400 | OFF | 8dB | 10dB | 12dB* | 22dB |
| Evolv AI 2000 | OFF | 8dB | 10dB* | | |
| Evolv AI 1600 | OFF | 8dB* | | | |
| Evolv AI 1200 | OFF | 8dB* | | | |

* Default Settings

Environment Management

Transients

Improves comfort for loud impulse sounds

Preserves natural sound quality

Environment Management

Wind

Uses machine learning to determine if turbulence is present over the microphones

Environment Management

Machine

Provides comfort for steady-state noise

Increases listening comfort

Environment Management

Quiet

Reduces low-level noise – including circuit noise

Increases listener's comfort

Environment Management

Fast-acting Noise Management

Speech in Noise
Speech in Loud Noise
Transients

Wind
Machine
Quiet

Auto Music


Directionality

Slow-acting Noise Management

Auto Music

Optimizes environmental music without compromising speech

Enhances perception of music



Environment Management

Fast-acting Noise Management

Speech in Noise
Speech in Loud Noise
Transients

Wind
Machine
Quiet

Auto Music

Directionality

Slow-acting Noise Management

Directionality

Improves speech understanding in noise

Multichannel with adaptive null steering

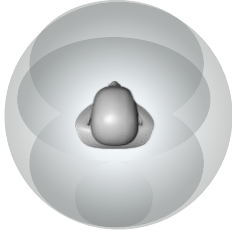
Directionality

Automatic

Adaptive Dynamic

Fixed

Directional Omni




Thrive Platform

Core Audio

Environment Management

Patient-driven Controls

Mask Mode

Voice AI
Deep Neural Network

Edge Mode

Patient-driven Controls

Mask Mode

Custom Memory designed to better hear those wearing face masks

Easy access within Thrive App

Fixed high frequency gain offsets & directional microphone mode

Mask Mode

Voice AI
Deep Neural Network

Edge Mode

Patient-driven Controls

- Mask Mode
- Voice AI
Deep Neural Network
- Edge Mode

Voice AI


First-of-its-kind speech enhancement feature with Deep Neural Network

- Apple iOS users
- Binaural Fittings

50 dB or greater loss at 250 & 500 Hz

Patient-driven Controls

- Mask Mode
- Voice AI
Deep Neural Network
- Edge Mode



Patient-driven Controls

- Mask Mode
- Voice AI
Deep Neural Network
- Edge Mode

Edge Mode

Continuous analysis of environments for advanced level of comfort and clarity

- Unique adaptation for any environment when engaged
- Settings are fixed once engaged
- Disengage and engage to accommodate changes to listening environment

Patient-driven Controls


- Mask Mode
- Voice AI
Deep Neural Network
- Edge Mode

Edge Mode

NEW

Now available through the Thrive app on additional technology tiers

New parameter adaptations with demonstrated improvement in speech audibility



NEW

Edge Mode Button

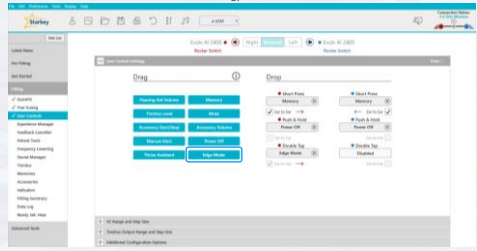
Products with Edge Mode will now have a button to engage it

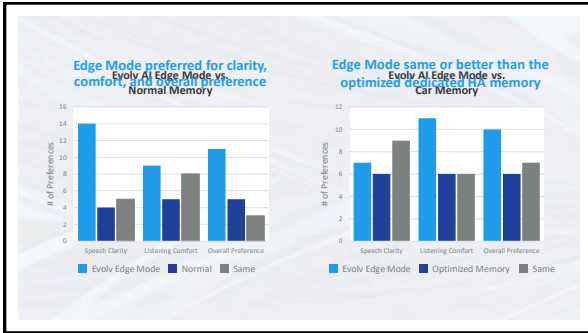
Will appear on the Home screen by default

Technology Tiers: 2400 | 2000 | 1600

Edge Mode User Controls

Technology Tier: 2400





Why patients will want it

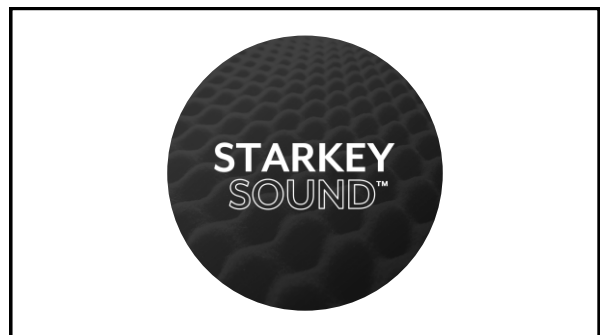
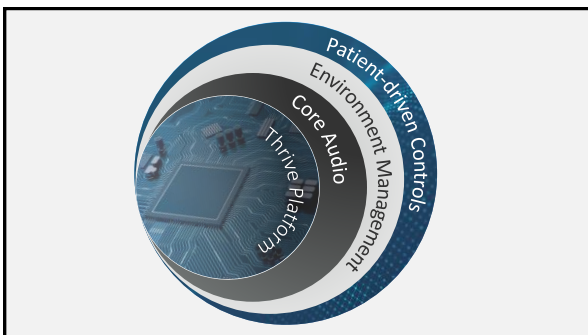
- Provides help whenever and wherever they need it most
- Easy to engage

How it helps you

- Reduces the need for creating multiple memories
- Reduces need for multiple fine-tuning appointments
- Fixes any challenges they encounter in the moment providing a higher-level of patient satisfaction

Edge Mode Benefits


- Real-time adjustments made for the listener
- Reduces listening effort
- Same or better than optimized hearing aid memory
- Can be turned On/Off in the Thrive app



0

unique Best Fit calculations

That's what we call effortless.



Starkey Sound™

55 million adjustments every hour
for the best possible sound quality.

Always on.
Always automatic.

Fitting
Considerations




Expanding Your Solutions



PowerPlus BTE
2.4 GHz wireless




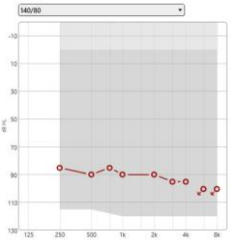
CIC
2.4 GHz wireless



CIC & IIC
Non-wireless

Power Plus BTE

- Earmold selection
- Experience Manager
- Fitting Formula
- Sound Manager settings

Power Plus BTE

Earmold selection

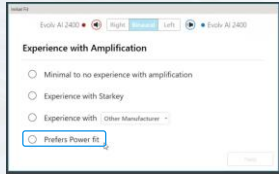


Soft Material Styles
HEAR-PROTECTIVE COUPLERS

| | | | |
|---|---|---|---|
|  |  |  |  |
| SHELL | HALF SHELL | CANAL | CANAL LOCK |
|  | | | |
| SKELETON | | | |

Power Plus BTE

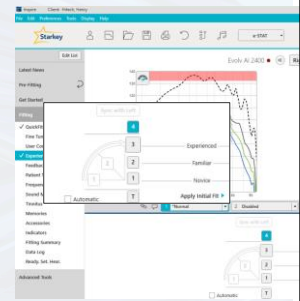
Experience Manager



Starkey software interface showing 'Experience with Amplification' options. The 'Prefer Power fit' option is selected.

Power Plus BTE

Experience Manager



Starkey software interface showing a graph of hearing aid performance. The graph displays frequency response curves for different settings.

Power Plus BTE

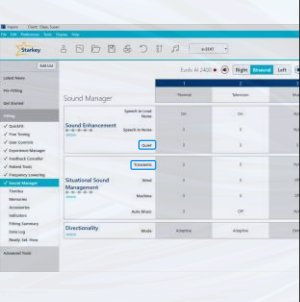
Fitting Formula



Starkey software interface showing a graph of hearing aid performance. The graph displays frequency response curves for different settings.

Power Plus BTE

Sound Manager settings



Starkey software interface showing 'Sound Manager' settings. The 'Sound Enhancement' section is visible, with various options for sound processing.

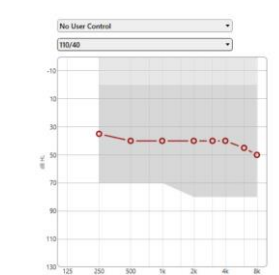
2.4 GHz Wireless CIC

Microphone Placement advantages

- Reduce wind noise interference
- Microphone location takes advantage of natural pinna and ear canal resonances

Use of eStore ordering will ensure correct matrix is ordered

REM Target Match



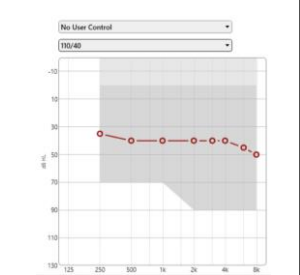
Starkey software interface showing a graph of hearing aid performance. The graph displays frequency response curves for different settings.

Non-wireless IIC


The ear is the boss

It all starts with a good impression

T2 Remote






Starkey software interface showing a graph of hearing aid performance. The graph displays frequency response curves for different settings.



T2 Remote


Allows users to control their hearing aids with a simple touch on their iPhone or iPod touch. T2 in the hearing aids will discreetly and instantly classify the tone signal from the iPhone or iPod touch and automatically adjust itself to the desired setting.

Available on the  and 



Follow Up





Providing an exceptional patient experience through follow up visits

The key to a successful patient journey is engagement




Follow Up Appointments


- Discuss hearing wins
- Ensure proper use and adjustment
- Uncover possible changes to environments or areas of trouble
- Consider highlighting a helpful feature or introducing an accessory
- Plan for the next follow up and set expectations for cadence moving forward

Effortless Follow Up Tools


Device Data




Fine Tuning Adjustments






Troubleshooting



TeleHear



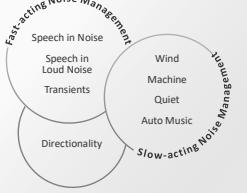

Opportunities to Gather Data

-  Patient report
-  Self Check
-  Data Log




Fine Tuning Adjustments

Sound Manager tools

Thrive App tools in Customize








Advanced Tools for Troubleshooting

-  Expert Assistant
-  Speech Mapping
-  Verify Comfort




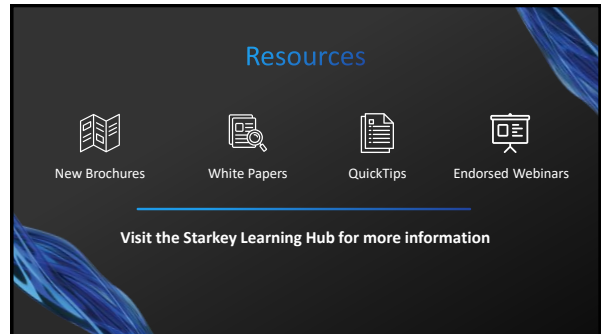
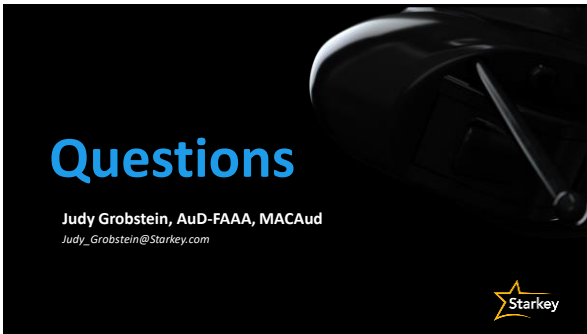
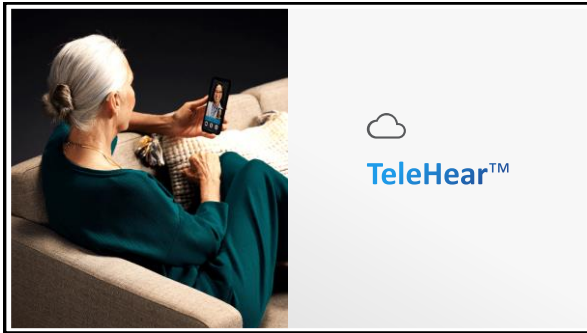
-  Expert Assistant
-  Speech Mapping
-  Verify Comfort



-  Expert Assistant
-  Speech Mapping
-  Verify Comfort



-  Expert Assistant
-  Speech Mapping
-  Verify Comfort



Thank You.

Endorsement Numbers

ACAud Endorsed: 2022106 (2 CEP points with passing quiz)
AudA Endorsed: CPD2122070 (Category 1.2) (1 CPD Point)
HAASA Endorsed: CPED2021-2023 (2022-48) (1.5 CPED points with passing quiz)



The Starkey logo features a yellow five-pointed star with a white outline, positioned to the left of the word "Starkey" in a white, sans-serif font.