

Hands-On Training for Hearing Aid Check-In Procedures and Advanced Feature Verification

Kentucky Academy of Audiology

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Who Am I?

Professor

Audiologist

Researcher

Department Chair

Wife

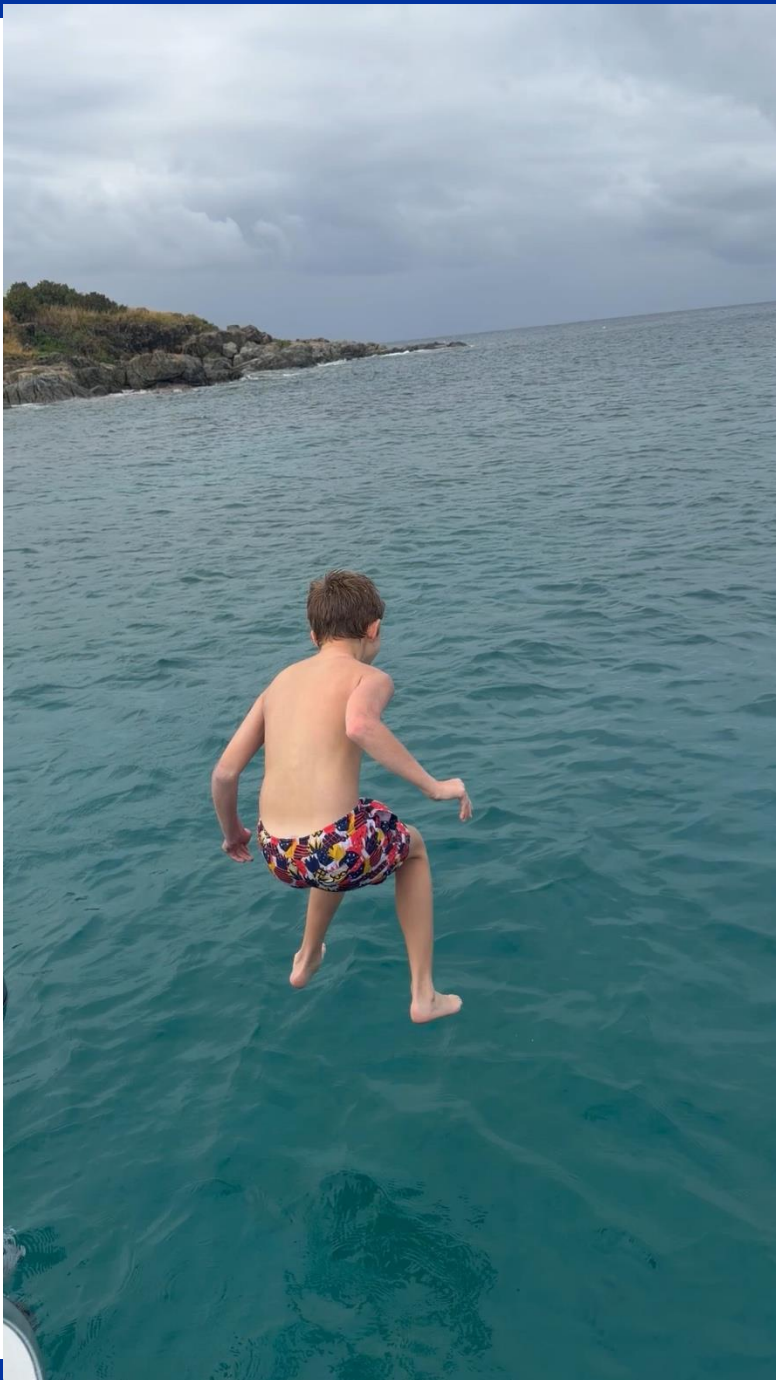
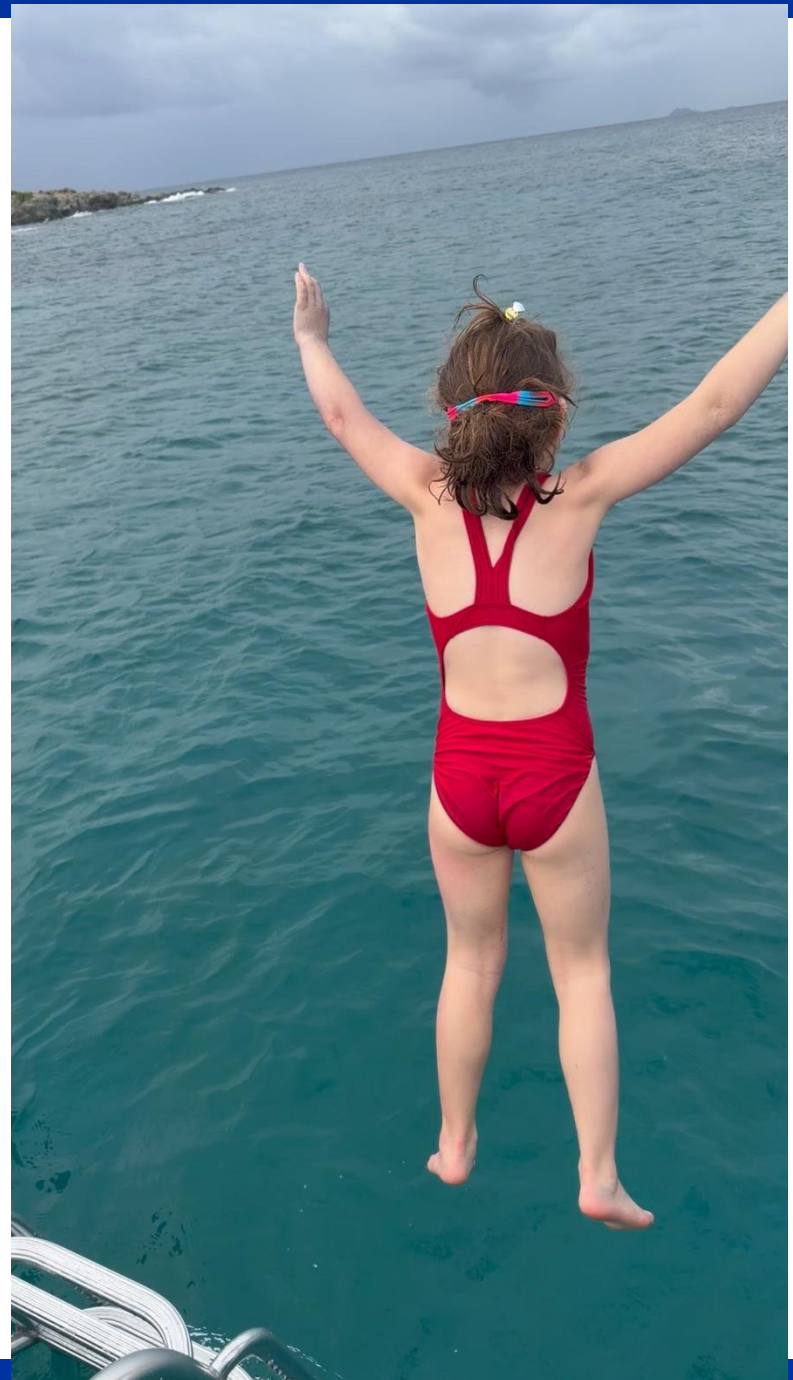
Mom

Organizer of all things

Disclosures

- The content is that of the author and not the:
 - Department of Veterans Affairs
 - US Government
 - University of Kentucky
 - Commonwealth of Kentucky
- I have various relationships with hearing aid manufacturers and verification system manufacturers for research.
- Author, *Verification of Hearing Aids: A Practical Guide* (Plural Publishing, 2026); receives royalties

Let's JUMP in!



Why Should I Verify?

If there is a REASON you are ordering a device, you need to verify that feature

How much does a feature "cost" you?

- Time, battery life, etc.?

Steps to Verify

Audiogram

- Enter thresholds

Real-ear-to-coupler Difference (RECDs)

- Conversion from dB HL to dB SPL for hearing aid

Programming on NOAH

- First fit vs modification

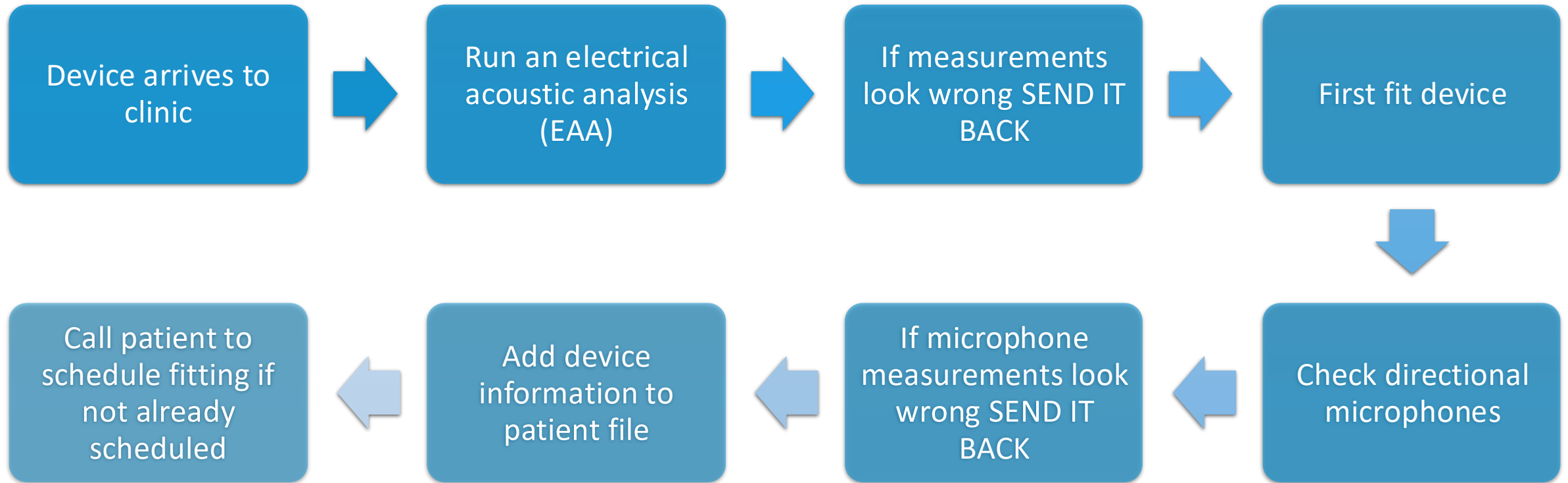
Real ear system

- Probe microphone measures

Test box

- Hearing aid analyzer

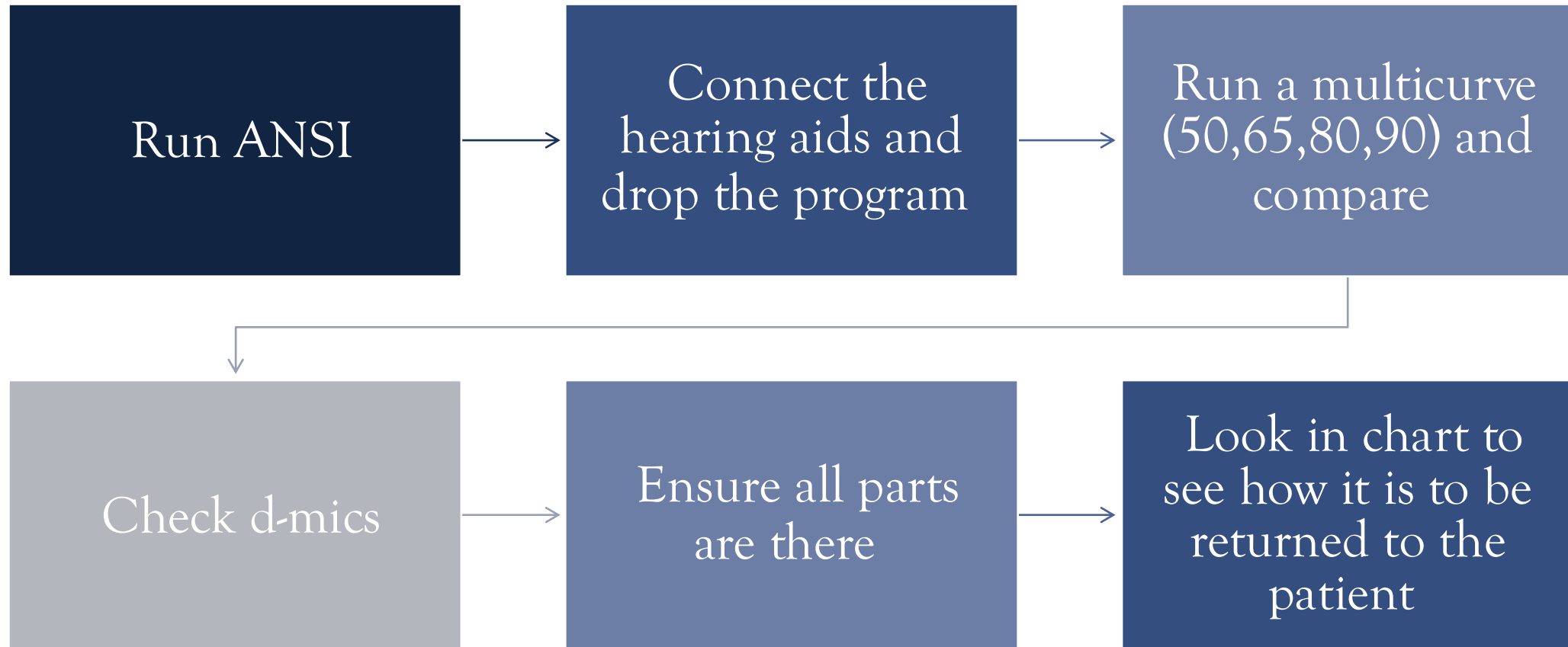
Our General Check in Process



Note: should we send it back or should we order a new one?

Jorgensen (2026), Verification of Hearing Aids, Ch. 4

Check-in Process – Repaired Hearing Aids



ANSI/ASA

American National Standards (ANSI Standards) are published by the Acoustical Society of America (ASA)

Specification sheet indicates the tolerance for specific measurement as compared to the manufacture specification sheet

Current edition: ASA/ANSI S3.22-2024

Replaces S3.22-2014 (R2020); the FDA OTC rule still cites the 2014 (R2020) edition. ISTS standard (S3.42 Part 2/IEC 60118-15) reaffirmed 2025.

When and why run an EAA

- ❖ Hearing aids that are new or returned from repair
- ❖ Allows you to examine the current function of those hearing aids and determine if they are operating appropriately!

EAA Steps

01

Set up

- Set up devices

02

Connect

- Connect to software and open measurement section

03

FOG

- FOG – Full on Gain
- All features disabled

04

Testing

- Reference testing

Set Devices up

Correct coupler and orientation in the test box

RIC

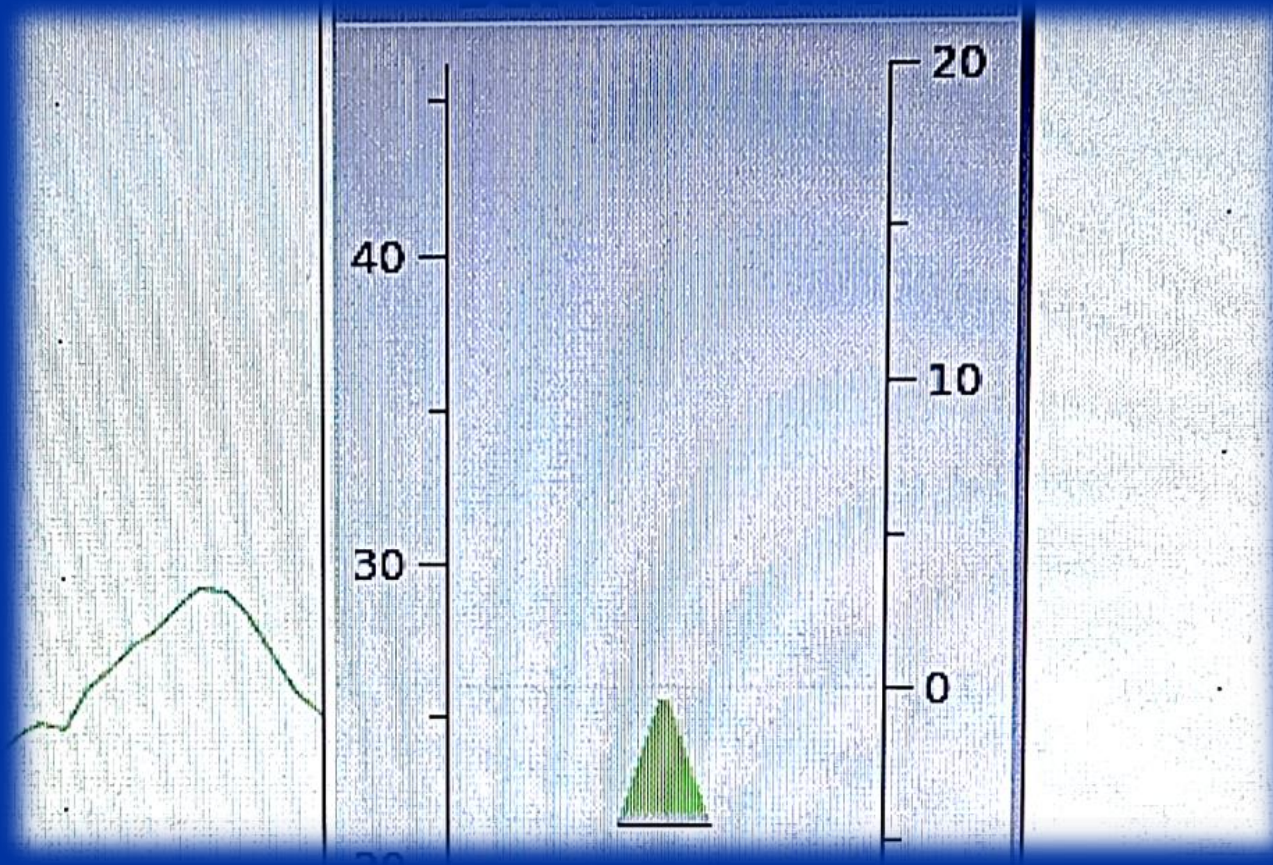


BTE



Custom





Reference Testing

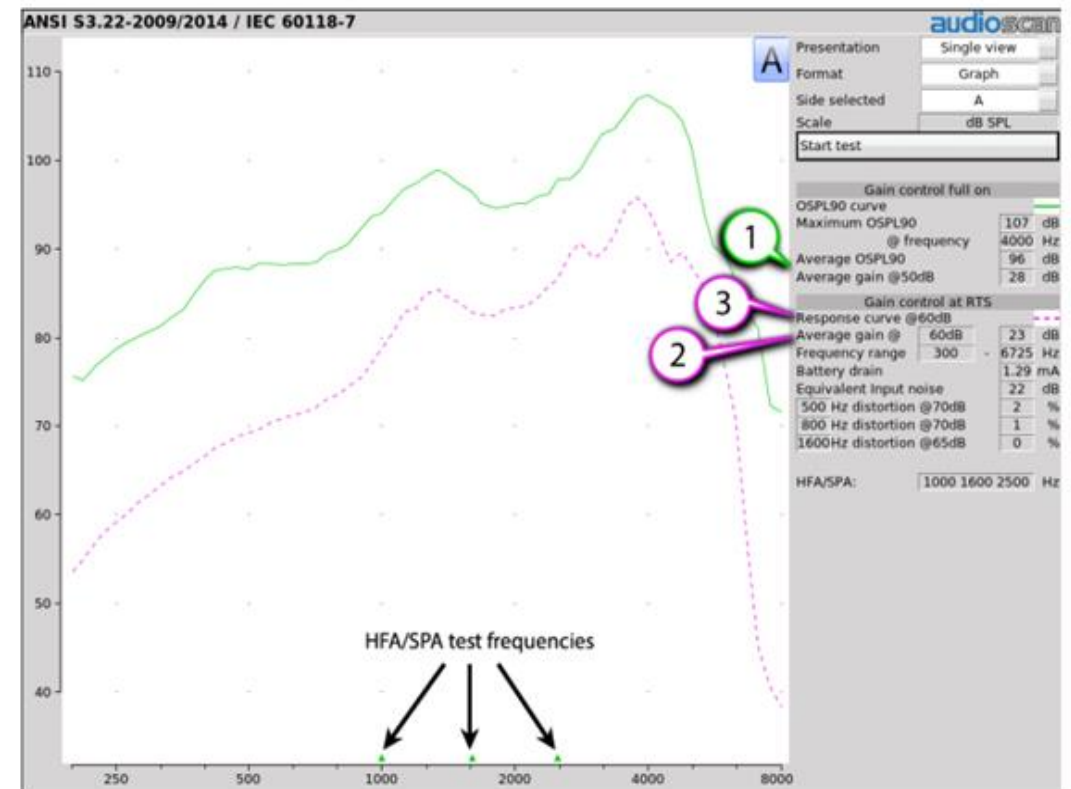
- Manipulated in the software
- Verification system will indicate when setting is applied

To do

- Check in the device: Ensure proper device function
- Complete an Electroacoustic Analysis (EAA) on hearing aids
- Put the HA needs to be in appropriate test settings
- Rechargeable HAs may arrive in “shipping mode”
 - and need to be placed in the charger for a few seconds to be ready to use
- Run ANSI in test box
 - (make sure to use the 2cc coupler if using VF2)

ANSI test results

Full-on average gain (1) is measured with a 50 dB input SPL, average gain at RTS (2) is always measured at 60 dB input SPL and the frequency response curve (3) is always run at 60 dB input SPL. An EIN of N/A means that the measurement system was unable to calculate an accurate EIN due to environmental noises in the test box. Ensure that the test box lid is closed and latched and minimize all sounds in the room.



HOW LONG DOES IT TAKE?

- Manufacturer
specification:
- Hearing aid
manufactures
 - Verification
manufactures

Test	Explanation of Test Result	Gain Setting	AGC	Input (dB SPL)	Frequency	Measure or Calculate	Tolerance
OSPL90 curve	Coupler SPL as a function of frequency for a 90 dB input SPL	Full on	Min	90	200 - 5000 Hz	Coupler SPL	unspecified
Maximum OSPL90	The maximum value of the OSPL90 curve	Full on	Min	90	Frequency of maximum	Maximum of OSPL90 curve	+ 3 dB
HFA-OSPL90	Average of the OSPL90 values	Full on	Min	90	HFA	Average coupler SPL at HFA frequencies	± 4 dB
HFA full-on gain (HFA-FOG)	Average of the full-on gain at the HFA frequencies	Full on	Min	50	HFA	Average gain at HFA frequencies	± 5 dB

ANSI specification Sheet

- Compare your measurements to the ANSI tolerance levels

Test	Explanation of Test Result	Gain Setting	AGC	Input (dB SPL)	Frequency	Measure or Calculate	Tolerance
reference test gain (RTG)	Average of the gain at the HFA frequencies for a 60 dB input SPL, with gain control at RTS	RTS	Min	60	HFA	Average gain at HFA frequencies	unspecified
Frequency range	Range between the lowest and the highest frequency at which the frequency response curve is 20 dB below its HFA value	RTS	Min	60	From the lowest frequency (f1) to the highest frequency (f2) at which the frequency response curve is 20 dB below its HFA average		unspecified
Frequency response curve	Coupler SPL as a function of frequency for a 60 dB input SPL, with gain control at RTS	RTS	Min	60	From the higher of f1 or 200 Hz to the lower of f2 or 5000 Hz. Wider range may be shown.	Coupler SPL or Gain	±4 dB from the lesser of 1.25 f1 or 200 Hz to 2kHz. ±6 dB from 2kHz to the lesser of 4kHz or 0.8 f2.
Total harmonic distortion (THD)	Ratio of sum of the powers of all the harmonics to the power of the fundamental	RTS	Min	70 except 65 @ highest frequency	500, 800, 1600 Hz (HFA) or ½ the SPA frequencies		+ 3%
Equivalent input noise (EIN)	SPL of an external noise source at the input that would result in the same coupler SPL as that caused by all the internal noise sources in the hearing aid	RTS	Min	OFF and 50	(Coupler SPL with no input) - (HFA gain with a 50 dB input SPL)		+3 dB
Battery current	Electrical current drawn from the battery when the input SPL is 65 dB at 1000 Hz and the gain control is at RTS	RTS	Min	65	1000 Hz	Battery current	+20%
SPL for an inductive telephone simulator (SPLITS)	For hearing aids with an inductive input coil (T-coil), the coupler SPL as a function of frequency when the hearing aid, with gain control at RTS, is oriented for maximum output on a telephone magnetic field simulator (TMFS). BTE is as flat as possible on test surface. ITE or ITC with faceplate as close as possible and parallel to test surface.	RTS	Min	Telephone magnetic field simulator (TMFS)	200 - 5000 Hz	Coupler SPL	unspecified
HFA-SPLITS	Average of the SPLITS at the HFA frequencies	RTS	Min	TMFS	HFA	Average SPLITS values at the HFA frequencies	± 6 dB
RSETS	Relative simulated equivalent telephone sensitivity	RTS	Min	TMFS	HFA	HFA-SPLITS minus (RTG + 60)	unspecified
Input-output curves	For hearing aids with AGC, the coupler SPL as a function of the input SPL, at one or more of 250, 500, 1000, 2000, 4000 Hz, with the gain control at RTS	RTS	Max	50 - 90 in 5 dB steps	One or more of 250, 500, 1000, 2000, 4000 Hz	Coupler SPL vs Input SPL	± 5 dB at 50 and 90 dB input SPL when matched at 70 dB input SPL

So, what do you do?

3 items

- Response from your system
- Manufacturer spec sheet
- Tolerances page

	2cc coupler IEC 118-7	2cc coupler IEC 118-7
Model:	Bellbir 770	Siemens Touching
Output (90 dB, SPL)		
Peak	130dB	126db
HF Average	119dB	118db
Gain (50 dB, SPL)		
Full-ON Gain:	56dB	56db
HF Average Full-ON Gain	50dB	52db
Frequency Range:	110~8300 Hz	
Total Harmonic Distortion:		
500Hz	2%	1%
800Hz	1.50%	1%
1600Hz	1%	1%
Equivalent Input Noise:	26dB	25db
Battery Type	A675	A13
Frequency Channels	4	2

New Billing Codes 2026...

Type of appointment	CPT codes	superbill	modifiers	other notes
Check-in (new device)	92641	Quality Control	52 if unilateral	ANSI
	92641	D-mic in test box	52 if unilateral	D-mic (test box = 92641)
Check-in (repair device)	92641	Device under warranty	52 if unilateral	if device is under warranty - need to complete: drop program, multicurve, d-mic
	92641	Out of Warranty repair	52 if unilateral	if device is out of warranty - need to complete: drop program, multicurve, d-mic

How Do I Code It? EAA / ANSI

THE SCENARIO

I ran ANSI on a new or repaired hearing aid, or a multicurve to compare with previous data.

1

92641

Hearing device verification, electroacoustic analysis

2

Unilateral? Add modifier 52

The code assumes both aids

3

Stand-alone code

Can be billed on its own or with other services

4

Set your fee

Base it on your cost of doing business (time, equipment, staff)

Adapted from Milne & Jorgensen, AAA 2026; ASHA (2026). Check each payer's coverage.

What About OTC Hearing Aids?

The rules (FDA, 2022)

- OTC category in effect since Oct 17, 2022
- Output capped at 111 dB SPL (117 dB SPL with input-controlled compression)
- Output measured per ANSI/ASA S3.22-2014 (R2020)
- User-adjustable volume required

What measurement shows

- The fitting is more important (*Wu et al., 2025*)
- 28 direct-to-consumer devices: ~80% exceeded recommended max output; ~70% had $\geq 2\%$ distortion (*Almufarrij et al., 2019*)
- Self-fit OTC gain ~10 dB below NAL-NL2; only 17% within ± 5 dB at 4 kHz (*Knoetze et al., 2025*)
- Apple OTC feature: easy to use, but real-ear gain mostly below NAL-NL2 (*Kruger et al., 2026*)
- Self-fit and clinician-fit outcomes can be similar (*Sabin et al., 2020; Baltzell et al., 2025*)

Patients will bring OTCs to you. Same test box, same questions: Is it working? Is it audible?

Does REM Still Matter? What's New in the Evidence

The case for REM

- 74% of manufacturer first fits missed NAL-NL2 by ≥ 10 dB at one or more frequencies (*Sanders et al., 2015*)
- REM fit improved soft-speech recognition by 15%; 79% preferred it (*Valente et al., 2018*)
- Meta-analysis: moderate benefit for speech in quiet and preference (*Almufarrij, Dillon & Munro, 2021*)
- ASHA calls REM the “gold standard” for verification (*ASHA Practice Portal*)

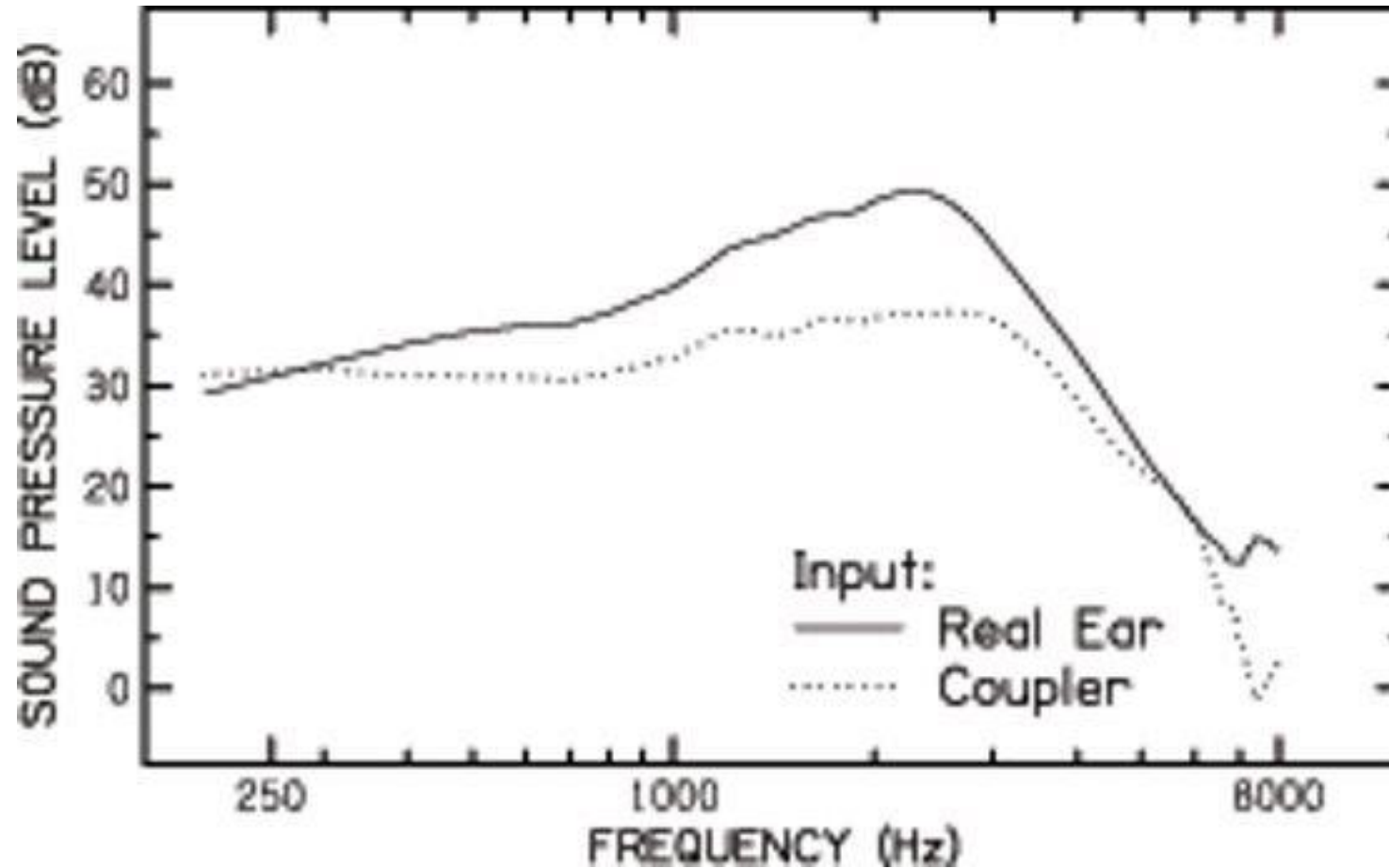
The newer challenge

- Blinded RCT, new users with mild–moderate loss: 60% preferred the initial fit, 22% the REM fit (*Almufarrij et al., 2023*)
- $n = 256$: REM did not reduce median deviation from target at 65 dB vs the initial fit (*Almufarrij et al., 2024*)
- NAL-NL3 released: modular prescription refined with machine learning from large fitting datasets (*NAL, 2025*)

First fits are getting closer. You only know YOUR patient's ear is on target if you measure it.

Jorgensen (2026), Verification of Hearing Aids, Ch. 5

Real Ear Acoustics



We order or validate a hearing aid based on coupler data (2cc, SPL)

Audiogram = dB HL

Hearing aid = dB SPL

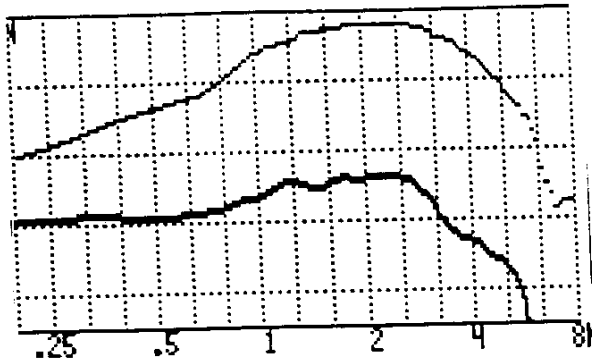
Need to convert HL to dB SPL for hearing aid

How??

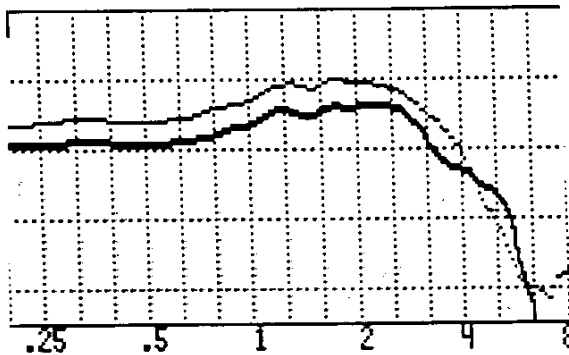
Average conversion = 2cc coupler

Adult white male

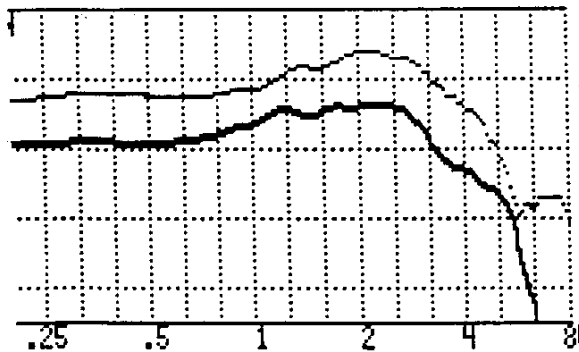
Problem?? Not all ears are 2cc



Erik 4 YOA



Grant 2 YOA



Kyle 33 YOA



But what if their ear is not average?

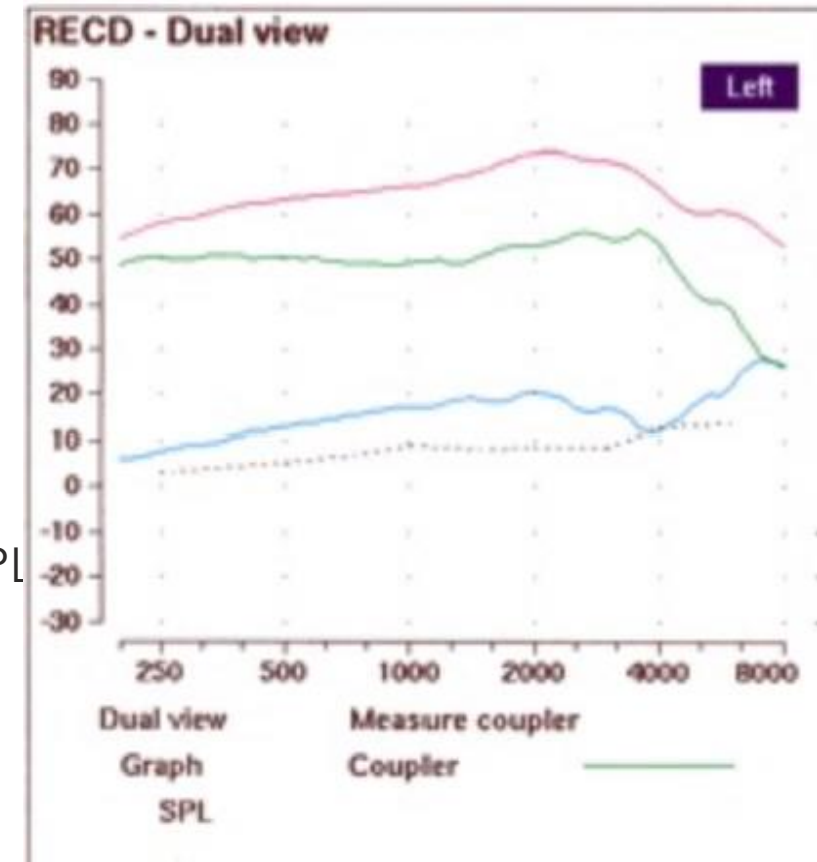
Response is "louder" = ear is smaller

So, the 7 dB conversion is not accurate?

Present 60 dB HL at 1000 Hz

Convert to 67 dB SPL?

In this case there is an additional 8 dB, so it is 75 dB SPL



Consequences...

RECD has nothing to do with hearing aids.

Where do targets come from?

Where do we fit the aid to?

If ear canal is smaller – would overfit the hearing aid

2026 Codes

- USD is itemized bundled.
- AR plan – includes all codes
- Patient chooses level of technology
- UK is (newly) unbundled
 - Buy – 45 days
 - 92631,92634,92639,92641,92642
 - Pay for services after

Aural Rehabilitation Services

- Hearing Aid Exam and Selection (92631)
 - Hearing Aid Fitting (92634)
 - Hearing Aid Verification with Probe Microphone Measurements (92639)
 - Electroacoustic Analysis (92641)
 - Fitting of Hearing Assistive Technology (92642)
 - Aural Rehabilitation (92633 – adult; 92630 - pediatric)
 - Follow-up Visits to Ensure Appropriate Device Function for Patient Needs (92636, 92633, 92638)
 - 3-year Comprehensive Care Plan (92636, v5299, etc)
 - Hearing Aid Supplies During Care Plan (v5257, v5267, v5266)
- \$XXXXXX**

Hearing Aid Technology Levels

- **Complex Listening Environments- \$XXXXXX each**
 - Multiple automatic, built in programs
 - Binaural processing of sounds
 - Highly sophisticated sound processing
 - Ear to ear functionality of program selection and volume control

Total: Including hearing aids and service plan
\$XXXXXX
- **Varied Listening Environments- \$XXXXXX each**
 - Several automatic built in programs
 - Binaural processing of sounds
 - Enhanced sound processing
 - Ear to ear functionality of program selection and volume control

Total: Including hearing aids and service plan
\$XXXXXX
- **Basic Listening Environments- \$XXXXXX each**
 - Limited automatic, built in programs
 - Standard sound processing
 - Ear to ear functionality of program selection and volume control

Total: Including hearing aids and service plan
\$XXXXXX

New Billing Codes 2026...

Type of appointment	CPT codes	superbill	Modifiers or timed	other notes
Hearing aid fitting	previous	Hearing aids and AR bundle	None (uni/bilateral)	
Refit - new audio clinic patient	92557, 92636, +92639	Audio, follow-up, RE verification (if not in warranty)	92636 timed; 52 on 92639 if unilateral	92639 is an add-on: bill with 92634 or 92636
Refit - new audio, new patient, new to aids	92557, 92634, +92639	Audio, HAF, RE verification	92634 timed (60 min, +92635 per 15)	Add 92641 if you ran EAA
Refit - new audio, new patient, personal aids	92557, 92636, +92639	Audio, service, RE verification	92636 timed; 52 on 92639 if unilateral	Add 92641 if you ran EAA

How Do I Code It? RECD + REAR

THE SCENARIO

I measured an RECD and ran REAR/speech mapping.

1

92641 for the test box portion

Coupler or simulated REM; modifier 52 if unilateral

2

+92639 if done on the ear

Hearing-aid measurement, verification with probe microphone; 52 if unilateral

3

92639 is an add-on

Report it with 92634 (fitting) or 92636 (follow-up)

4

V5020 conformity evaluation

Payer-dependent: some plans want it instead of or in addition to CPT. Check your payer.

5

Set your fee

Base it on your cost of doing business (time, equipment, staff)

Adapted from Milne & Jorgensen, AAA 2026; ASHA (2026). Check each payer's coverage.

What else can be verified using REM?

Directional mic feature

Noise reduction

Frequency lowering feature

Occlusion effect

Measuring feedback

Voice audibility

Hearing Protection

Speech in noise

National Academies of Science, Engineering, and Medicine

- Consensus Study Report – 2025
- [Measuring Meaningful Outcomes for Adult Hearing Health Interventions](#)

Core outcome set (2 outcomes)

- Understanding speech in complex listening situations
- Hearing-related psychosocial health

Verifying audibility is necessary, but not sufficient.

(NASEM, 2025)



What does this mean?

- Why not hearing aid verification?
- How do you do this (SPIN) without access to a test booth?



LET'S TALK D-MIC!

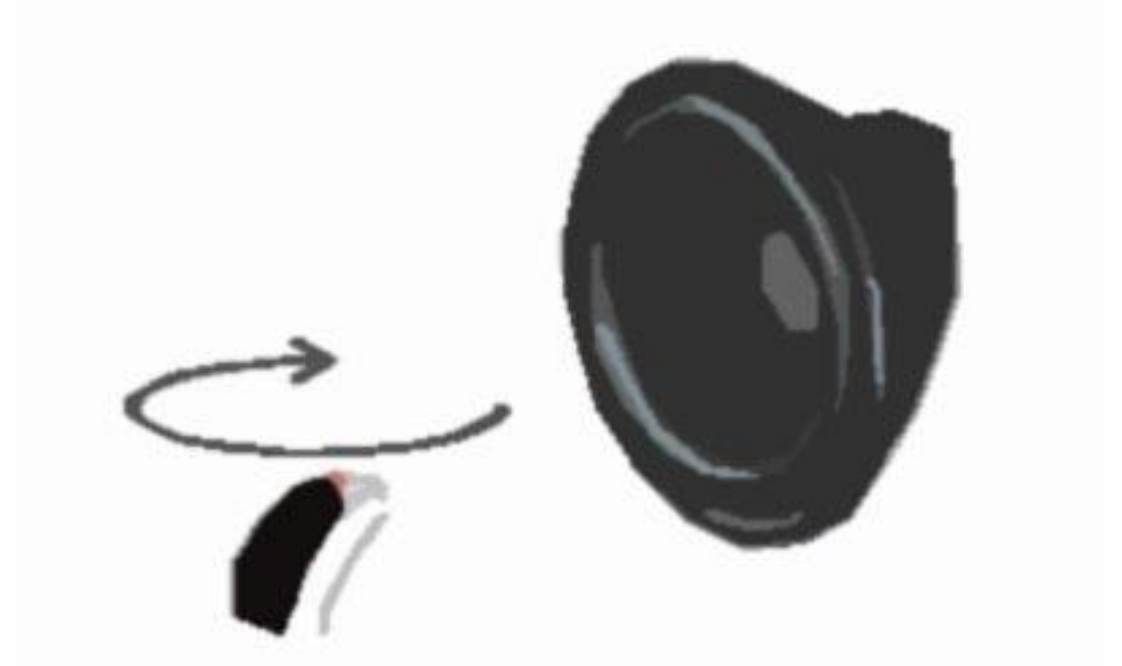
How do you verify this feature?

Directional microphone curve

Turn 45 or 90 degrees

Pass: rear signal at least 3 dB below front

(Palmer & Zitelli, 2024; Jorgensen, 2026)

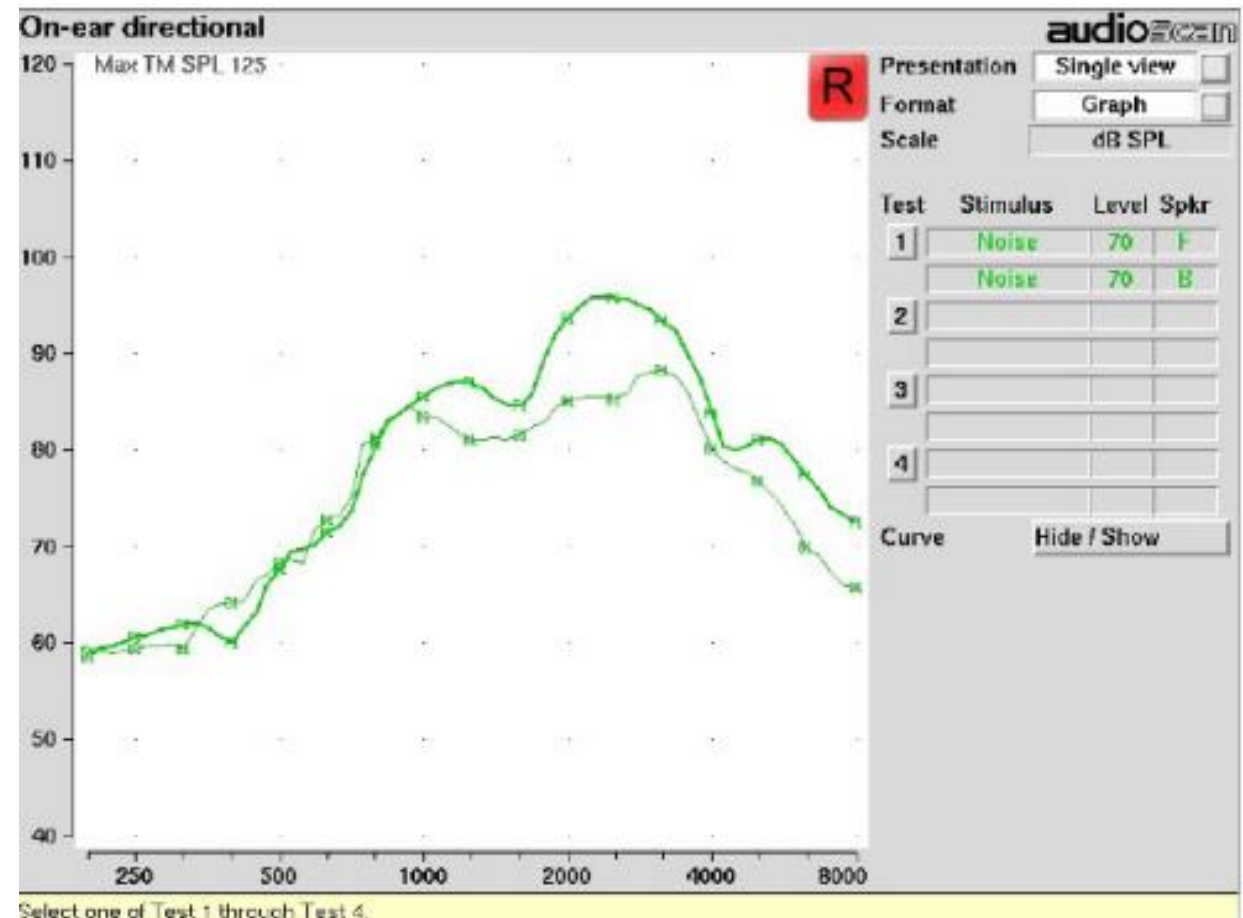


Jorgensen (2026), Verification of Hearing Aids, Ch. 6

Adaptive systems can need ~10+ s of continuous signal to switch

(Kuk et al., 2005)

- Should see it return to the same as the first curve after a period of time
- But for how long?
- Can always ask the manufacturer?



Adaptive Directional Performance

Why use it?

Current technology often uses automatic processing to analyze the environment

Allows for better performance in more complex listening environments

New Billing Codes 2026...

Type of appointment	CPT codes	superbill	Modifiers or timed	other notes
Hearing aid fitting	previous	Hearing aids and AR bundle	None (uni/bilateral)	
Check in of device	92641	D-mic in test box	52 if unilateral	Need to write specifically what you tested and why
Follow up or service	92636, +92639	HA service	92636 timed; 52 on 92639 if unilateral	D-mic verified on the ear = +92639

How Do I Code It? Directional Mics

THE SCENARIO

I verified my patient's directional microphones.

1

In the test box: 92641

Modifier 52 if unilateral

2

On the ear: +92639

Add-on to 92634 or 92636; 52 if unilateral

3

V5020 conformity evaluation

Payer-dependent: some plans want it instead of or in addition to CPT. Check your payer.

4

Document it

What you tested, why, and the front-to-back result

5

Set your fee

Base it on your cost of doing business (time, equipment, staff)

Adapted from Milne & Jorgensen, AAA 2026; ASHA (2026). Check each payer's coverage.

Remote Microphone



When



Why



Verify!!

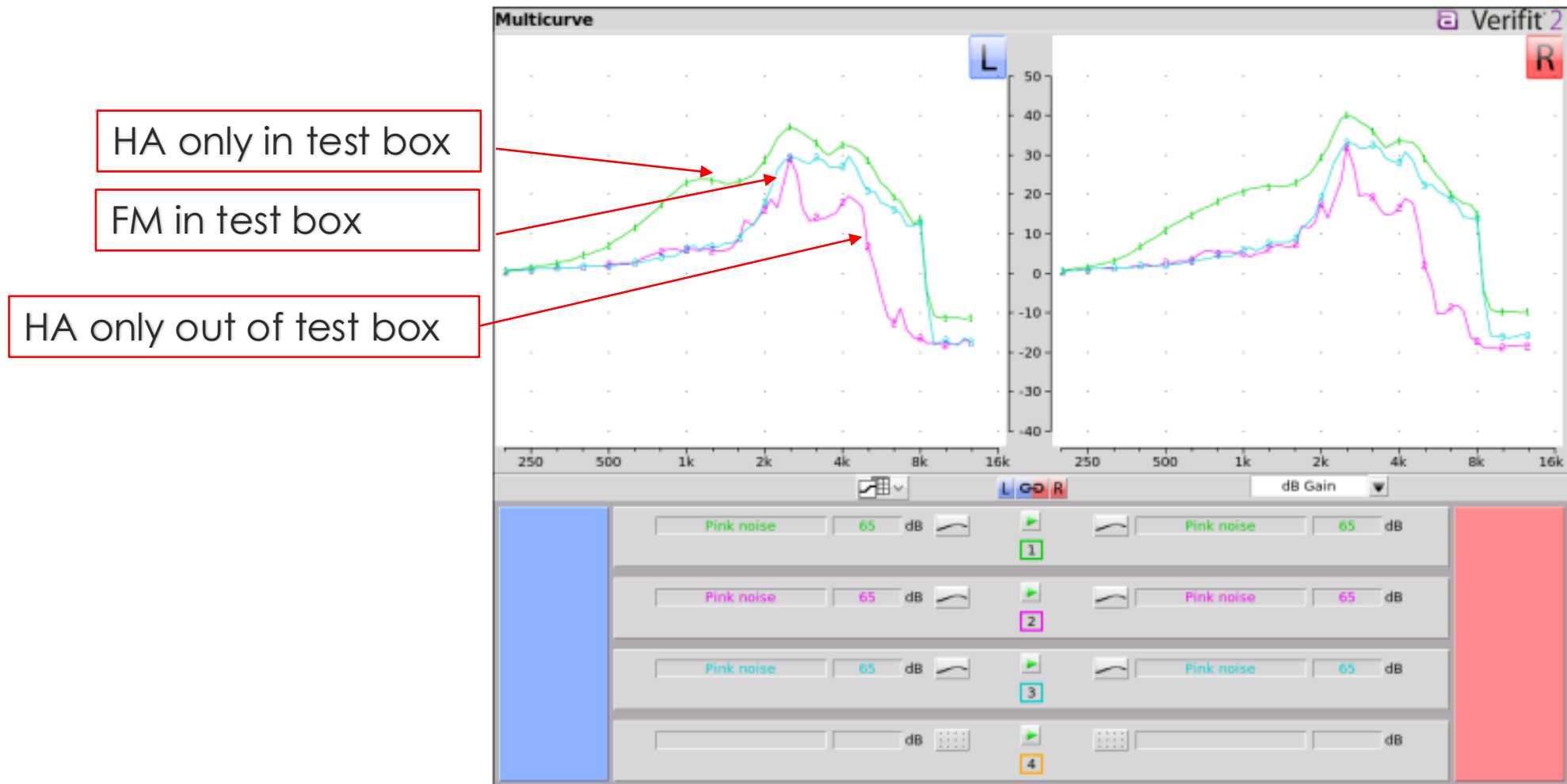
How do you verify a remote microphone?

- Set the hearing aid up in the traditional setting
- Run a curve
- Connect the remote microphone
 - Ensure it is streaming!
- Place the remote microphone in the test box
 - HA connected to the...
- Run the same curve again
- How close should the curves be when measured?

Jorgensen (2026), Verification of Hearing Aids, Ch. 8



Is the Remote Mic running correctly?

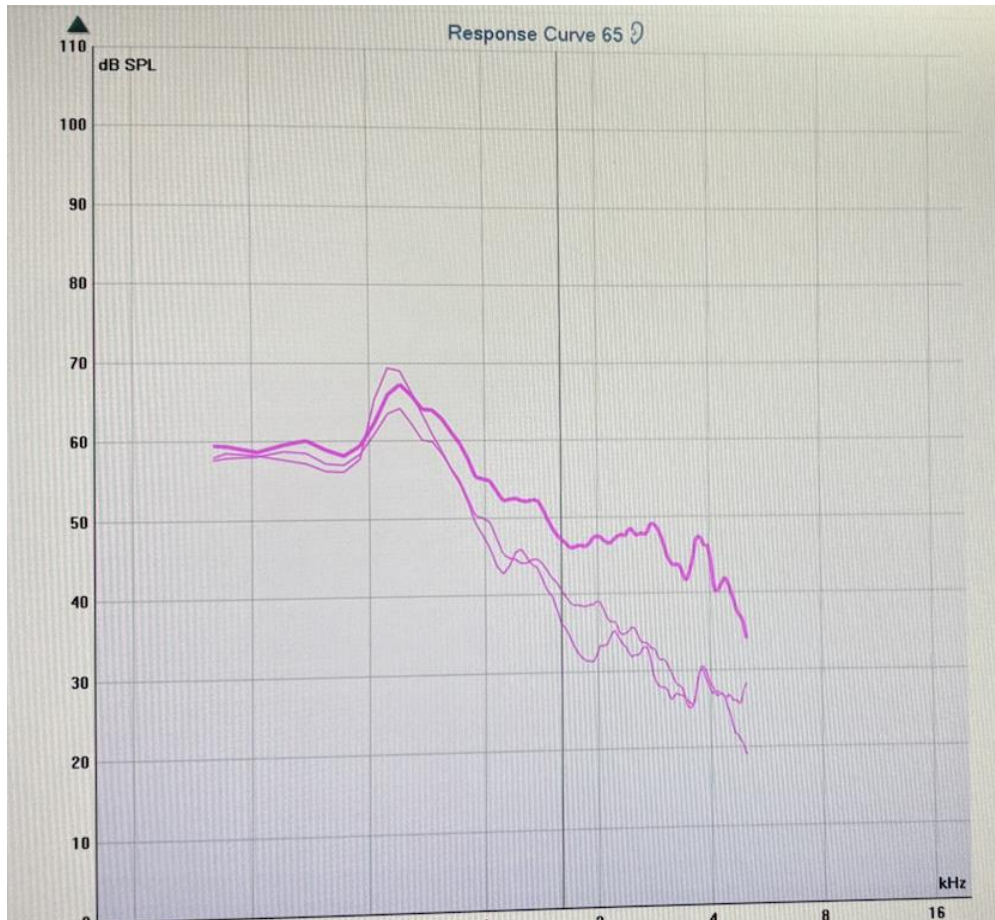
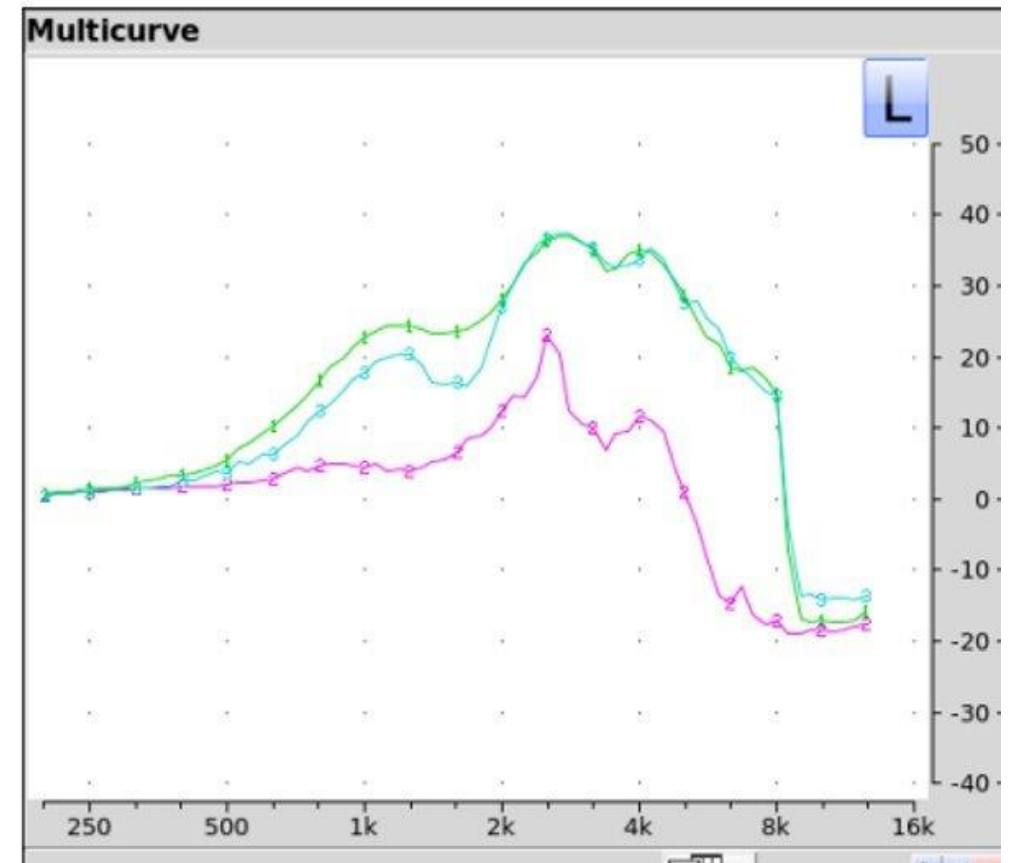


What is close enough?

Transparency target: remote mic and
HA mic outputs within ± 2 dB (avg of
750, 1000, 2000 Hz)

(AAA, 2011; Jacob et al., 2021)

Make adjustments in the software



New Billing Codes 2026...

Type of appointment	CPT codes	superbill	Modifiers or timed	other notes
Hearing aid fitting	previous	Cannot bill as part of HAF		92642 can't be billed with 92634
Remote mic fitting/verification	92642	Supplemental technology	Not timed	Need to write specifically what you tested and why
Follow up or service	92636	HA service	timed	Can't bill 92642 at the same visit

How Do I Code It? Remote Mic

THE SCENARIO

I verified the function of my patient's remote microphone.

1

92642

Hearing assistive device, supplemental technology fitting services

2

Watch the bundling

Can't be billed with 92631–92639 (selection, fitting, follow-up, verification add-ons)

3

Plan the visit

Verify at its own visit, or bill the code that best fits the visit

4

Set your fee

Base it on your cost of doing business (time, equipment, staff)

Adapted from Milne & Jorgensen, AAA 2026; ASHA (2026). Check each payer's coverage.

Getting Paid: What Is Your Billing Model?

1

Fully bundled

Device and services for the life of the aid in one price

Verification is “included,” but code it anyway so the data show what you do

2

Partially bundled

Service plans or services included for a set number of years

Bill verification after the plan ends, or for services the plan doesn't cover

3

Fully unbundled

Device and each service priced separately

Code and charge for each verification you perform

Our two clinics: USD uses an itemized bundle (an AR plan that includes all codes). UK is newly unbundled: services are billed after the purchase.

Which model you use changes how you bill for everything in this talk. Adapted from Milne & Jorgensen, AAA 2026.

2026 Hearing Device Codes: Cheat Sheet

Code	Service	Type	Unilateral	Can't bill with
92628 / +92629	Candidacy evaluation	Timed: 30 min, +15 min	Code covers both	92636–92637, 92642
92631 / +92632	Selection	Timed: 30 min, +15 min	Code covers both	92636–92637, 92642
92634 / +92635	Fitting (programming, verification)	Timed: 60 min, +15 min	Code covers both	92636–92637, 92642
92636 / +92637	Post-fitting follow-up	Timed: 30 min, +15 min	Code covers both	92628–92635, 92642
+92638	Behavioral verification (aided, SIN)	Add-on, untimed	RT/LT	Only with 92634/92636
+92639	Probe-mic verification (REM)	Add-on, untimed	Modifier 52	Only with 92634/92636
92641	Electroacoustic analysis	Stand-alone, untimed	Modifier 52	Stand-alone
92642	Supplemental technology (FM/DM, remote mic)	Stand-alone, untimed	Varies	92631–92639

Timed codes: at least 16 min for a 30-min unit, 8 min for a 15-min unit. 92590–92595 deleted Jan 1, 2026. Highlighted rows = the verification codes in this talk.
Source: ASHA (2026); check each payer.

Code and Charge for What You Do

Document it

- What you tested: device, ear, test, and stimulus
- Why: the complaint, the feature you ordered, or the repair
- The result: pass/fail vs. spec or target, and what you adjusted
- For timed codes: your time (the 16- and 8-minute rules)

Charge for it

- Know your cost of doing business: time, equipment, staff
- Set a fee for each code, not just the device
- Check each payer's coverage of the new codes
- Self-pay patients: give a good-faith estimate (No Surprises Act)

Our services are valuable. Verification is valuable. Coding it accurately helps the whole profession.

Adapted from Milne & Jorgensen, AAA 2026; ASHA (2026).

Making the Case for Verification Equipment

1

Clinical necessity

Confirms targets and manufacturer specs; expected for accreditation and payers

2

Pediatric and special populations

Test box with RECD when on-ear testing isn't possible

3

Feature validation

D-mics, noise reduction, feedback, frequency lowering, streaming

4

Operational efficiency

Pre-fitting checks, fewer follow-ups, consistent protocols

5

Accreditation and compliance

Documentation for site visits, insurance audits, reporting

6

Return on investment

Fewer returns and refits, happier patients, billable services

~\$15,000

Sample cost of a test box system with RECD, telecoil, and streaming verification

Ch. 9 includes a sample letter to your employer and a cost-benefit table

Jorgensen (2026), Verification of Hearing Aids: A Practical Guide, Ch. 9, Table 9–1

NEW FOR 2026

AI in Hearing Aid Selection and Verification

What's already in the device, what you can use in clinic on Monday, and where the guardrails are



AI Is Already in the Fitting

1

Deep neural network noise reduction

- DNN denoising improved SRTs by 3.5–4.2 dB for hearing aid users in the lab (*Diehl et al., 2023*)
- Now in premium devices (e.g., Phonak Sphere Infinio, Starkey Edge AI)
- Up to 13 dB SNR gain on KEMAR, ~1 dB on QuickSIN in listeners (*Fitzgerald et al., 2025*)

2

Machine-learning personalization

- Widex SoundSense Learn: Bayesian ML tunes settings from the user's A/B choices (*Balling et al., 2021*)
- Environmental classifiers switch programs and features automatically

3

ML-informed prescriptions

- NAL-NL3: modular targets refined with machine learning from large fitting datasets (*NAL, 2025*)
- New modules: minimal hearing loss and comfort in noise (*Bennett et al., 2025*)

An AI feature is still a feature. If you ordered it, verify it.

Verifying AI Features in the Test Box

1

Know what it does

Ask the manufacturer what the feature changes, how fast it engages, and which program it lives in.

2

Use test mode first

Use the manufacturer's REM/ANSI test mode so AI, DNN, and the classifier don't change gain mid-measure. Then re-test in normal mode.

3

Measure off vs. on

Run speech in noise (e.g., ISTS + noise) with the feature off, then on. Compare output and SNR (Palmer & Zitelli, 2024).

4

Give it time

Adaptive features need a continuous signal to engage. Adaptive directionality can take ~10+ s (Kuk et al., 2005).

5

Protect audibility

Re-run speech in quiet with the feature on. Noise reduction should not cost you your targets.

6

Validate

Pair the measurement with speech-in-noise testing or a COSI goal (NASEM, 2025).

Jorgensen (2026), Verification of Hearing Aids, Chs. 7–8

Ways to Use AI in Your Selection and Verification Workflow

1 COSI goals → feature list

Turn a patient's (de-identified) goals into the features to order, and then the checks to verify each one.

2 Spec sheet decoder

Summarize manufacturer spec sheets and compare ANSI values across models before you order.

3 Tolerance check

Build a table of your ANSI results vs. the spec sheet and flag out-of-tolerance values. Then confirm them yourself.

4 Protocols and checklists

Draft check-in, EAA, and REM protocols for staff, students, and assistants.

5 Counseling materials

Plain-language handouts on REM, frequency lowering, remote mics, and realistic expectations.

6 Documentation

Note templates that record what you tested, why, and the result.

Try These Prompts

SELECTION

"I'm an audiologist. Here are a patient's COSI goals (no identifying information): [goals]. List hearing aid features that could address each goal, and for each one, how I could verify it in a test box or with real-ear measures."

VERIFICATION

"Here is the ANSI S3.22 spec sheet for [model] and my test box results. Build a table comparing each measure to the spec and its tolerance, flag anything out of tolerance, and show your work."

COUNSELING

"Write a one-page handout at a 6th-grade reading level explaining why I measure the hearing aid in the patient's ear, and what the patient will see during the test."

Guardrails: Use AI, Then Verify



Accuracy varies

ChatGPT scored 48–69% on objective hearing test questions, and answers changed between repeats.

(Jedrzejczak, 2024)



An adjunct, not a replacement

LLM audiogram interpretation is improving, but authors recommend it only as an adjunct.

(Karaçaylı et al., 2025)



Protect PHI

Keep patient identifiers out of public chatbots. Use institution-approved tools covered by a BAA.

(Marks & Haupt, 2023)



You are the verifier

Every AI output, and every AI feature in the device, gets checked against a measurement.

(Frosolini et al., 2024)

Same rule as every other feature: if it matters to the fitting, measure it.

THANK YOU!

Question
Comments

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Now you get to do it!

ANSI

Directional Microphone

Remote Microphone