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LISTENING TAKES PRACTICE

Removing Barriers to Auditory Skills Training
Presented by Phonak + Advanced Bionics | A Sonova Brand

Learning Objectives

1. Describe why auditory skills training is an important offering in hearing healthcare.
2. Identify the benefits of offering auditory skills training via online programs and apps.
3. List digital auditory skills training tools available.

1. The Hearing Journey

Hearing Care Providers (HCPs) are often the first point of contact for individuals experiencing hearing loss. While hearing technology is essential, it does not completely eliminate all listening challenges — particularly in noisy environments.

Key Insight:

Hearing loss challenges are not completely eliminated after fitting a hearing aid or cochlear implant. A holistic approach that includes auditory skills training is needed for the best patient outcomes.

2. What Is Auditory Skills Training (AST)?

Auditory Skills Training (AST) — also called auditory training — is the process of improving auditory skills through structured, repetitive listening exercises. It uses active listening activities to train the brain to interpret auditory stimuli and better understand spoken language.

Term	Definition
Auditory Training (AT)	Classic clinical term; structured, repetitive listening exercises to train the brain.
Auditory Skills Training (AST)	Preferred term used throughout this presentation — same concept as auditory training.
Hearing Habilitation	For children developing hearing skills for the first time.
Hearing Rehabilitation	For adults relearning to interpret sound after hearing loss.

WHO Recognition

In the 2021 World Report on Hearing, the World Health Organization (WHO) acknowledged that auditory training helps people better use hearing in all situations.

Ears and Brain: Equal Partners

While the ears pick up the acoustic signal, the brain interprets the sound and gives it meaning. The better the quality of the incoming signal, the better the chances for speech comprehension. AST helps strengthen the brain's ability to make sense of what the ears receive.

Foundational Listening Skills Hierarchy

Auditory training builds skills from the ground up:

▲ **COMPREHENSION** — understanding meaning of spoken language

IDENTIFICATION — recognizing and naming sounds/words

DISCRIMINATION — telling two sounds apart

▼ **DETECTION / AWARENESS** — knowing a sound is present

3. Hearing Technology Is Not Always Enough

Hearing aids and cochlear implants amplify and deliver sound — but they do not automatically teach the brain how to interpret that sound. Auditory skills training bridges this gap.

Brain Training Benefits:

- Strengthens neural pathways for language, listening, and cognitive development
- Refines top-down processing and understanding
- Improves speech perception and recognition in noise
- Enhances cognitive skills: focus, attention, processing speed, working memory

Neuroplasticity research confirms that auditory brain training can accelerate and complement the hearing process and promote sensory neuroplasticity. — Kraus & White-Schwoch, 2015

4. Evidence Supporting Auditory Skills Training

While training programs differ in type, length, and delivery, the evidence overwhelmingly supports AST as a beneficial intervention.

Improve Speech Perception in Quiet & Noise

Olson et al. (2013) — 29 adults in three groups: new HA + training, experienced HA + training, new HA (no training). Four weeks of online training.

**16–
20%**

Benefit in sentence recognition improvement within the first weeks of hearing aid use. Both new AND experienced HA users improved understanding of speech in quiet and noise. New users showed greater benefit.

Improve Speech Recognition in Noise

Whitton et al. (2017) — Randomized double-blind placebo-controlled trial. Elderly hearing-impaired subjects trained 3.5 hrs/week over 8 weeks using tablet-based auditory software.

~25%

more words correctly identified in a given sentence

1.5 dB SNR

reduction in speech in noise recognition threshold

Reduced Listening Effort

Kuchinsky et al. (2014) — 29 adults with mild-moderate hearing loss (avg. age 70). Speech-perception training resulted in improved word recognition in noise AND reduced listening effort (measured via pupillary response). Benefits generalized to untrained listening conditions.

5. Benefits of Auditory Skills Training

Strengthen Clinical Outcomes

Facilitate Adjustment to Technology

Improve Quality of Life

Strengthen Clinical Outcomes

- Improved speech perception in quiet AND noise — for new AND experienced users
- Benefits generalize after training to real-world communication situations
- Reduced cognitive listening effort in noise

Facilitate Adjustment to Hearing Technology

- Increased hearing aid wear time
- Decreased device return rate (3.5% vs. 13.1% — Martin, 2007)
- Increased perceived benefit and satisfaction ratings
- Greatest improvements in CI users during first 3–9 months post-activation, continuing through 5 years

Improve Quality of Life

- Improves communication confidence (Rogers & Tomlinson, 2018)
- Reduces limitations in daily living activities — social, family, recreation, employment, education
- Helps people be better equipped to participate in life
- Promotes the value of dedicated time outside the clinic for structured listening practice — helping patients reach their personal communication goals

6. AST: The Missing Piece in Hearing Healthcare

<10%

of audiologists currently offer AST to clients with hearing impairment. (Stropahl et al., 2019). AST is often the missing piece, even though it is WHO-endorsed and evidence-based.

Common Barriers

Four main barriers to providing comprehensive aural rehabilitation services (Ray et al.):

Barrier	Detail
Reimbursement / Cost	Services not consistently reimbursed; perceived as added cost
Patient Accessibility	Time, travel, cost; patients may not recognize value or think technology 'fixed' their hearing
Evidence / Standard	Perceived lack of evidence-based protocols (evidence now strong — awareness is the gap)
Professional Awareness	No uniform understanding of whose role it is; limited referral networks; no nearby facility

7. Online Auditory Skills Training Solutions

Online and app-based AST programs overcome most traditional barriers by providing accessible, self-directed, evidence-based listening practice anytime, anywhere — at no cost or low cost.

Benefits of Online AST:

- Overcomes barriers: cost, accessibility, distance, communication partner availability
- Allows practice at the patient's own pace, at home or on the go
- Supports socially isolated individuals who lack communication partners
- Self-directed learning improves confidence, ownership, and outcomes

LACE AI Pro

An industry-leading auditory training program built on 20+ years of research. LACE AI Pro helps patients learn to hear with their brain, not just their ears. Key features include:

- Structured listening exercises in progressive difficulty
- "Voices" feature: train using recorded voices of family and friends
- Studies show 10–15% intelligibility improvement in just one week using familiar voices
- Clinic-branded app; available as a partnership — visit www.laceauditorytraining.com

HearingSuccess Portal (FREE)

Phonak + Advanced Bionics offer the HearingSuccess portal (HearingSuccess.com) — a free, comprehensive online resource for adults and children with hearing aids or cochlear implants.

Tool	Description
WordSuccess™	Mobile app (iOS/Android). Improves word and phrase discrimination in quiet and noise. 2,300+ recorded items, increasing difficulty levels, progress tracking shareable with audiologist.
SoundSuccess™	Interactive online listening program. Exercises to improve speech understanding: practice with/without lipreading, 6 speakers with varied dialects, adjustable background noise levels.
BabyBeats™	Early intervention app for babies/toddlers. Musical activities to develop early listening skills, language, and bonding.
The Listening Room™	Hundreds of interactive activities for children (and adults). Auditory discrimination games, featured songs, listening skill builders.

How to Introduce HearingSuccess to Clients:

4. Register — Help your patient register at HearingSuccess.com
5. Review — Explore the resources available together
6. Demonstrate — Show the portal and apps in the clinic
7. Recommend — Include HearingSuccess.com in your evaluation report

8. Summary

Key Takeaways

- Auditory skills training should be a fundamental part of hearing healthcare — not an afterthought.
- Hearing technology treats the ear; AST trains the brain. Both are needed for optimal outcomes.
- AST is recommended for ALL patients — new and experienced HA and CI users — not just those who express dissatisfaction.
- Online tools (HearingSuccess.com — FREE; LACE AI Pro) remove the major barriers to access.
- Introduce HearingSuccess early in the aural rehabilitation process — it is free for you and your clients.

Notes

Key Resources

HearingSuccess.com
laceauditorytraining.com

Key References:

WHO World Report on Hearing
(2021)
Olson et al., 2013 (LACE)
Whitton et al., 2017
Kuchinsky et al., 2014
Stropahl et al., 2019