

NGN NCLEX 2026 • SENSORY • HEARING

Hearing Aids *teaching & nursing care*

A complete review of hearing aid types, proper insertion and removal, daily care and storage, troubleshooting, communication strategies, and safety considerations — designed for clinical judgment and exam priority cues.

SENSORY SYSTEM

PATIENT TEACHING

SAFETY • FALL RISK

GERIATRIC FOCUS



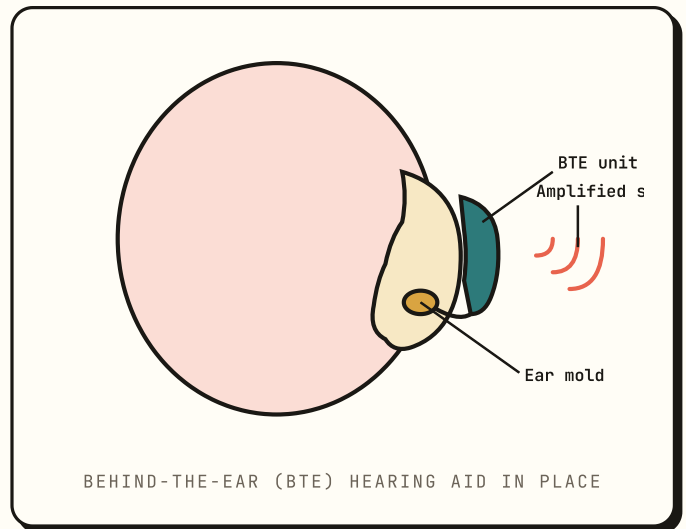
Source disclosure: This topic was not present in the uploaded reference notes. Content is built from standard NGN NCLEX 2026 references — **Saunders Comprehensive Review for the NCLEX-RN (Silvestri)**, **ATI RN Adult Medical-Surgical Nursing**, **Lippincott Illustrated Reviews: Pharmacology**, and clinical guidance from the **American Speech-Language-Hearing Association (ASHA)** and the **National Institute on Deafness and Other Communication Disorders (NIDCD)**.



Definition & Overview

WHAT IT IS • WHY IT MATTERS

- ▶ A **hearing aid** is a small, battery-powered electronic device worn in or behind the ear that **amplifies sound** for clients with hearing loss.
- ▶ Components include a **microphone** (picks up sound), **amplifier** (increases sound waves), **receiver/speaker** (delivers sound to the ear), and a **battery**.
- ▶ Hearing aids **do NOT restore normal hearing**; they make sounds louder and clearer so the client can communicate, remain safe, and stay socially engaged.
- ▶ Used most often for **sensorineural hearing loss** (inner ear/CN VIII damage) and some conductive losses. Profound loss may require a cochlear implant instead.



2

How a Hearing Aid Works

STEP-BY-STEP SOUND AMPLIFICATION

STEP 01

Sound In

Microphone picks up environmental sound waves and converts them to an electrical signal.



STEP 02

Amplify

Amplifier increases the signal strength at the specific frequencies the client cannot hear.



STEP 03

Deliver

Receiver/speaker converts the boosted signal back to sound waves and delivers them into the ear canal.



STEP 04

Perceive

Sound waves reach the cochlea → hair cells stimulate CN VIII → brain interprets sound.

Key point: The hearing aid does **not** repair damaged hair cells or the auditory nerve — it just makes the input louder. That's why even with a hearing aid, the client may still need lip-reading, written cues, and a quiet environment to understand speech clearly.

3

Types of Hearing Aids

STYLE • PLACEMENT • USE

TYPE	PLACEMENT	BEST FOR	PEARLS
Behind-the-ear (BTE)	Sits behind the ear; tube + ear mold in canal.	Mild to profound loss; pediatric clients.	Most durable; easy to handle; popular for older adults with dexterity issues.
In-the-ear (ITE)	Fills the outer ear bowl (concha).	Mild to severe loss.	Easier to insert than smaller styles; visible.
In-the-canal (ITC)	Sits in the ear canal opening.	Mild to moderate loss.	Less visible; smaller battery = harder for arthritic hands.
Completely-in-canal (CIC)	Deep in the canal; nearly invisible.	Mild to moderate loss.	Cosmetically appealing; not ideal for clients with poor dexterity or vision.
Bone-anchored (BAHA)	Surgically implanted; transmits sound via skull vibration.	Conductive loss, single-sided deafness, chronic ear infections.	Bypasses outer/middle ear entirely; assess surgical site for infection.

4

Signs the Hearing Aid Isn't Working

WHAT TO ASSESS • RED FLAGS

EARLY • MILD

Subtle Clues

- ▶ Client asks others to repeat themselves.
- ▶ Turns TV/radio volume up.
- ▶ Withdraws from conversation; seems "out of it."
- ▶ Whistling or feedback noise from the aid.
- ▶ Sound is weak or intermittent.

RED FLAGS

Don't Miss These

- ▶ **Sudden loss of amplification** → dead battery, wax block, or switch off.
- ▶ **Persistent whistling/feedback** → poor fit, cracked tubing, wax in canal.
- ▶ **Pain, drainage, or redness** in the ear → otitis externa or pressure ulcer from mold.
- ▶ **Dizziness or new vertigo** → assess for impacted wax or inner-ear issue.
- ▶ **Increased confusion or falls** in the older adult — hearing loss is a known reversible contributor to delirium and fall risk.

5

Priority Nursing Interventions

SAFETY • ABC FRAMEWORK

AIRWAY • AWARENESS

A

Ensure the client can **hear safety alarms, fire alerts, and emergency announcements**. A working hearing aid is a **safety device**, not a comfort item. If the aid is broken or missing, place the client closer to the nurses' station and use visual cues.

BATTERY • BASICS

B

Check the battery first if the aid stops working. Replace weekly or as needed. Store spare batteries away from children and pets (button batteries are a swallowing hazard). **Open the battery door when not in use** to extend battery life.

CARE • CLEAN • CHECK

C

Clean daily with a soft dry cloth. Remove ear wax from the mold with the supplied wax loop. **Do NOT use water, alcohol, or solvents** on electronic parts — moisture destroys the circuitry. Inspect tubing for cracks.

SAFETY • STORAGE

S

Store in a **dry, cool case** with the battery door open. Keep away from heat (no dashboards, no hairdryers, no microwaves to "dry"). Remove before showering, swimming, or hair-spray use. Place on a soft surface when inserting to prevent damage if dropped.

FALL • FUNCTION

F

Assess for **fall risk** — unaddressed hearing loss is linked to a higher fall rate and to delirium in hospitalized older adults. Ensure the aid is **in place and turned on** before ambulation, teaching, medication reconciliation, or any teach-back.

6

Insertion, Removal & Troubleshooting

STEP-BY-STEP PROCEDURE

Inserting the Hearing Aid

- ▶ Perform hand hygiene; gather aid + fresh battery if needed.
- ▶ Check the aid: clean, intact tubing, battery installed correctly.
- ▶ Turn the aid **OFF** and turn volume to the **lowest setting** before insertion (prevents loud feedback).
- ▶ Line up the mold with the ear canal; gently push and rotate forward to seat it.
- ▶ Once seated, turn the aid **ON** and slowly increase volume to the comfort level (usually about ½ on the dial).

Removing the Hearing Aid

- ▶ Turn the volume **down**, then turn the aid **OFF**.
- ▶ Gently lift up and forward to dislodge the mold; do not yank.
- ▶ **Open the battery door** (saves the battery, dries any moisture).
- ▶ Wipe with a soft dry cloth; clean wax from the mold with the wax loop.
- ▶ Store in the labeled case in a cool, dry location — never on a sunny windowsill or near heat.

Troubleshooting Quick Reference

PROBLEM	LIKELY CAUSE	NURSING ACTION
No sound	Dead/inserted backward battery; switch off; volume down; wax block.	Check battery orientation & charge; turn on; raise volume; clean wax loop.
Whistling / feedback	Poor mold fit; cracked tubing; wax in the canal.	Reseat the mold; inspect tubing; assess canal with otoscope for cerumen.
Weak / fading sound	Low battery; partial wax block.	Replace battery; clean ear mold with wax loop.
Distorted sound	Moisture in unit; volume too high; damaged microphone.	Open battery door to dry; lower volume; refer for service.
Skin breakdown behind ear / in canal	Poor fit; pressure ulcer from mold.	Remove aid; assess skin; notify audiologist for re-fitting.

7

Pharmacology & Ototoxicity

DRUGS THAT WORSEN HEARING LOSS

Hearing aids don't help if the underlying hearing loss is being made worse by medications. Recognize and report **ototoxic drug** effects early — many cause permanent damage.

DRUG CLASS	EXAMPLES	EFFECT / CUE	NURSING ACTION
Aminoglycosides	Gentamicin, tobramycin, neomycin	Tinnitus, hearing loss, vertigo (CN VIII damage)	Monitor peak/trough; report ringing in ears immediately.
Loop diuretics	Furosemide, bumetanide, ethacrynic acid	Tinnitus, especially with rapid IV push	Give IV slowly; monitor for hearing changes.
Salicylates (high dose)	Aspirin	Tinnitus → often <i>first sign of salicylate toxicity</i>	Hold drug; notify provider; check salicylate level.
Chemotherapy	Cisplatin, carboplatin	Ototoxicity → permanent hearing loss	Baseline audiogram; monitor for tinnitus; report.
Antimalarials	Quinine, chloroquine	Tinnitus, hearing loss	Stop drug; notify provider.

8

NCLEX Test Traps

WRONG VS RIGHT • COMMON CONFUSIONS

TRAP

"Insert the hearing aid with the **volume turned all the way up** so the client can immediately hear you."



RIGHT

Insert with aid **off and volume LOW**, then turn on and adjust upward — prevents painful feedback and acoustic startle.

TRAP

"Clean the hearing aid with **alcohol or warm soapy water** daily for sanitation."



RIGHT

Use a **soft DRY cloth**. Moisture and solvents destroy the electronics. Only the removable ear mold can be cleaned with mild soap/water.

TRAP

"The client speaks loudly — shout back so they understand you."



RIGHT

Don't shout. Shouting distorts speech and can be painful with an aid. **Face the client**, speak in a **normal low-pitched tone**, and reduce background noise.

TRAP

"The hearing aid will **restore normal hearing** once it's adjusted."



RIGHT

A hearing aid **amplifies sound** — **it does not restore normal hearing**. Realistic expectations prevent client frustration and abandonment of the device.

TRAP

"If the aid gets wet, **blow-dry it on high heat** or place it on a heater to dry."



RIGHT

NEVER apply heat. Open the battery door, remove the battery, and place the aid in a dehumidifier kit or a dry storage case for 24 hours.

TRAP

"It's fine to leave the hearing aid in during surgery, MRI, or CT scan."



RIGHT

Remove the aid before MRI (magnet damage) and per facility policy before surgery. Label and store securely; document removal/return.

9 Patient & Family Education

DISCHARGE TEACHING CHECKLIST

Daily Care

- ☒ Clean the ear mold daily with a **soft dry cloth**; use the wax loop to clear cerumen from the opening.
- ☒ **Open the battery door** at night to extend battery life and prevent moisture buildup.
- ☒ Replace the battery weekly or as needed; **store batteries safely away from children and pets.**
- ☒ Remove the aid before **showering, swimming, hair-spray, or hair-dryer use.**
- ☒ Insert and remove the aid over a **soft surface** (bed/towel) so it doesn't break if dropped.

Lifestyle & Safety

- ☒ Start in **quiet environments** and gradually introduce noisier settings as you adjust.
- ☒ Expect that **your own voice may sound different** at first — this is normal.
- ☒ Schedule a **follow-up audiology visit** within a few weeks of fitting, then yearly hearing checks.
- ☒ Report **pain, drainage, dizziness, or persistent whistling** right away.
- ☒ Carry a **spare battery** and the wax-loop tool whenever leaving home.
- ☒ Keep the aid **out of extreme heat** — no dashboards, no microwaves to "dry" it.

Communicating With a Client Who Wears a Hearing Aid

1 Face the client at eye level. Stand 2-3 feet away in good lighting so the client can see your lips and facial expressions.

2 Speak in a normal, low-pitched tone — high frequencies are usually lost first; shouting distorts speech.

3 Reduce background noise — turn off the TV, close the door, move to a quiet area before teaching or consent.

4 Rephrase rather than repeat if the client doesn't understand the first time; use shorter, simpler sentences.

5 Verify with teach-back and provide written materials. Don't rely on a head-nod as evidence of understanding.

6 Confirm the aid is on and the volume is set before starting any teaching, medication review, or informed-consent discussion.

10

Memory Boosters

MNEMONICS & PATTERN RECOGNITION

H · E · A · R

H ygiene — clean daily with a soft DRY cloth.

E nergy — check the battery; open the door at night.

A djust — insert with volume LOW, then raise it.

R eport — pain, drainage, dizziness, persistent feedback.

D · R · Y

D on't submerge — remove before shower/swim.

R emove battery if wet; open the door.

Y ou — never use heat (hairdryer, microwave, dashboard).

F · A · C · E

F ace the client at eye level.

A djust environment — quiet, well-lit.

C alm, normal-pitch tone (no shouting).

E valuate understanding with teach-back.

Ototoxic = "A LACE"

A minoglycosides (gentamicin)

L oop diuretics (furosemide)

A spirin (high dose)

C hemo (cisplatin, carboplatin)

E arly sign: tinnitus → STOP & report.

11

NGN Clinical Judgment Scenario

NCJMM 6-STEP WALK-THROUGH

CASE SCENARIO

An 82-year-old female is admitted to the medical-surgical unit after a fall at home. She wears bilateral behind-the-ear hearing aids. The nurse notes that the client is answering questions inappropriately, appears anxious, and keeps asking "What?" with each question. The right hearing aid is whistling continuously. Vital signs are stable. The client states, "I can't hear anything out of this one — and my ear has been itchy all morning."

STEP 1 • RECOGNIZE CUES

What stands out?

Relevant cues: 82 y/o post-fall, bilateral BTE aids, inappropriate answers, anxiety, asks "What?", **right aid whistling**, no sound from right aid, **itchy ear**. **Irrelevant:** stable VS for now. The combination of feedback + no sound + itch points to a hearing-aid problem, not a stroke or new neuro deficit.

STEP 2 • ANALYZE CUES

What's likely going on?

Whistling + weak/no sound + itch most often = **cerumen impaction** in the canal blocking the receiver, OR a **poorly seated/cracked ear mold**. Hearing loss is contributing to the client's "confused" presentation and fall risk — this may not be true delirium.

STEP 3 • PRIORITIZE HYPOTHESES

Most likely first?

1st: Mechanical hearing-aid failure (cerumen block or poor mold fit).
2nd: Skin breakdown / otitis externa from a poorly fitting mold.
3rd: True delirium — but cannot evaluate cognition accurately until hearing is restored. Fix the aid *first*, then reassess.

STEP 4 • GENERATE SOLUTIONS

Plan of care

Remove the aid; assess the canal and skin behind the ear; clean the ear mold with the wax loop; check tubing for cracks; reinsert with volume **off** → **low** → **comfort**. Face the client, speak in a normal low tone, reduce background noise. Initiate fall-precaution bundle. Notify audiology if a fit issue is suspected.

STEP 5 • TAKE ACTION

What the nurse does

Turn aid off → remove → inspect for wax, cracks → clean with dry cloth + wax loop → reinsert with volume low → turn on → titrate volume up.
Confirm the client can hear normal speech before any teaching or consent. Reassess orientation, mood, and fall risk once the aid is functional.

STEP 6 • EVALUATE OUTCOMES

Did it work?

Expected outcomes: whistling resolves, client answers appropriately, anxiety decreases, "confusion" clears — confirming hearing loss (not delirium) was the driver. **Re-evaluate:** persistent symptoms after aid is fixed → escalate (consider true delirium, infection, neuro work-up).