MADISON NEUROLOGY · NEUROLOGY SYMPTOM GUIDE

# Sudden loss of hearing

Structured history, interpretation & clinical review

Symptom 76 of 94
Clinical educational workbook
Version 1.0 · October 2026

**Not for clinical use.** This guide cannot diagnose, triage, or exclude an emergency. Seek emergency care for severe, sudden, or worsening symptoms.

# Contents


Scope and safe use 3

Section 1: Input form 4

- 1A. Immediate safety screen 4
- 1B. Timeline 4
- 1C. Discriminating features 4
- 1D. Associated findings 5
- 1E. Clinical context 5

Section 2: Interpreting the input form 7

Section 3: Clinical review 10

Selected references 12


> **Document purpose**
> A structured educational history and diagnostic-reasoning workbook. Treatment is outside its scope.

# Scope and safe use

Sudden hearing change requires immediate separation of sensorineural hearing loss from conductive blockage, middle-ear disease, vestibular schwannoma, and vascular or neurological causes.

**Not for clinical use.**
This educational workbook does not diagnose, triage, estimate probability, replace examination, or exclude an emergency. If a safety-screen answer is Yes or uncertain, follow the stated action rather than continuing routine interpretation.

## How to complete the workbook

- Record the current episode and the person's usual baseline; use a witness account for events with impaired awareness.
- Check one option per question unless a clinician documents a different combination. "Not sure" is unresolved information, not a negative answer.
- Complete the safety screen before all other sections. Record exact onset or last-known-well time for sudden deficits.
- Use Section 2 only after the form is complete. More than one pattern may be relevant; urgency takes precedence.
- Use Section 3 to plan focused examination and clinician-selected investigations. No test is automatic or universally required.

## Specific escalation rule

New severe headache, new focal weakness or numbness, new speech/language difficulty, reduced consciousness, a prolonged seizure, severe breathing or swallowing difficulty, sudden visual loss, or rapidly progressive weakness requires emergency assessment. Call 911 in the United States.

# Section 1: Input form

Checkbox history for Sudden loss of hearing

## 1A. Immediate safety screen

**Is there new face droop, one-sided weakness or numbness, difficulty speaking or understanding, double vision, or severe loss of coordination?**

☐ No ☐ Yes ☐ Not sure

**If Yes:** Call emergency services now and record the exact time the person was last known well.

**Is there new confusion, reduced consciousness, a seizure, or difficulty awakening?**

☐ No ☐ Yes ☐ Not sure

**If Yes:** Call emergency services now. Do not leave the person alone or give food, drink, or medication by mouth.

**Is there new severe breathlessness, inability to swallow saliva, blue lips, or rapidly worsening weakness?**

☐ No ☐ Yes ☐ Not sure

**If Yes:** Call emergency services now; breathing and swallowing problems can become critical quickly.

**Is there sudden loss of vision, a new missing visual field, or a painful red eye?**

☐ No ☐ Yes ☐ Not sure

**If Yes:** Seek emergency eye or emergency-department assessment now.

> **Stop rule:** Any Yes answer triggers the action printed under that question. Any Not sure answer requires prompt in-person clarification; do not treat it as No.

## 1B. Timeline

**How did the symptom begin?**

☐ Suddenly, over seconds or minutes ☐ Over hours to days ☐ Gradually over weeks or months ☐ Longstanding or since childhood ☐ Not sure

Use the first occurrence for recurrent episodes; use the current episode for a changing symptom.

**What is the overall course?**

☐ One persistent episode ☐ Separate recurrent episodes ☐ Steadily worsening ☐ Fluctuating or variable ☐ Currently resolved

**Has this exact pattern been assessed before?**

☐ Definitely new ☐ The same pattern occurred before ☐ Present and stable for a long time ☐ Not sure

## 1C. Discriminating features

**Is the hearing change in one ear or both?**

☐ One ear ☐ Both ears ☐ Not sure

**How quickly did it develop?**

☐ Instantly or on awakening ☐ Over hours to three days ☐ Over more than three days ☐ Not sure

**Which associated symptoms are present?**

☐ Spinning, severe imbalance, or vomiting ☐ Facial weakness, numbness, speech change, or double vision ☐ Ear pain, discharge, fullness, or recent infection ☐ None of these

**Was there trauma, barotrauma, loud noise, a new ototoxic medicine, or a recent procedure?**

☐ Yes ☐ No known trigger ☐ Not sure

## 1D. Associated findings

**Are there other neurological symptoms—weakness, numbness, speech change, double vision, swallowing difficulty, or severe imbalance?**

☐ Yes ☐ No ☐ Not sure

**Are there systemic clues—fever, weight loss, cancer, infection risk, pregnancy/postpartum status, or a new medication?**

☐ Yes ☐ No ☐ Not sure

**How much does this affect daily activity?**

☐ Noticeable but activities continue ☐ Some activities are limited ☐ Cannot perform usual activities ☐ Not sure

## 1E. Clinical context

**Who is being assessed?**

☐ Adult or adolescent ☐ Child under 12 ☐ Adult aged 65 or older

**Could a medicine, substance, withdrawal, or recent dose change be relevant?**

☐ No plausible contributor ☐ Yes or possibly ☐ Not reviewed

Include sedatives, dopamine-blocking drugs, stimulants, decongestants, anticholinergics, alcohol, and non-prescribed substances when relevant.

**Is there a relevant neurological, muscular, metabolic, cardiovascular, autoimmune, or sleep disorder?**

☐ No known relevant condition ☐ Yes ☐ Not sure

**What prior information is available?**

☐ A previous examination or investigation ☐ Prior records but no clear explanation ☐ No useful prior assessment ☐ Not sure

## Additional history and documentation

Record exact dates/times, witness details, relevant medication doses and changes, prior investigation reports, and the person's baseline function.

# Section 2: Interpreting the input form

Answer combinations generate a differential and an assessment pathway—not a diagnosis.

> **Precedence:** Emergency safety answers override every pattern below. Otherwise, the highest-urgency fully matched pattern takes precedence. If entries are incomplete, contradictory, or match no pattern, use the unresolved-information pathway.

## Pattern 1: Sudden one-sided hearing-loss pathway

**Is the hearing change in one ear or both?** One ear
**How quickly did it develop?** Instantly or on awakening / Over hours to three days

**Urgent assessment pattern — Same day**

Sudden one-sided hearing loss requires same-day urgent ENT assessment even if the ear feels merely blocked.

**Differential to review:**

- Sudden sensorineural hearing loss
- Cerumen, otitis media, or conductive ear disease

**Action:** Arrange same-day medical assessment. If symptoms are rapidly worsening or severe, call 911.

**Contingency:** Do not wait for routine hearing tests or assume wax is the cause.

## Pattern 2: Sudden hearing loss with acute vestibular features

**Which associated symptoms are present?** Spinning, severe imbalance, or vomiting
**How quickly did it develop?** Instantly or on awakening / Over hours to three days

**Urgent assessment pattern — Same day**

Sudden hearing loss with acute vertigo requires same-day ear, vestibular, and neurological assessment.

**Differential to review:**

- Vascular, neurological, traumatic, or ototoxic cause
- Sudden sensorineural hearing loss

**Action:** Arrange same-day medical assessment. If symptoms are rapidly worsening or severe, call 911.

## Pattern 3: Sudden hearing loss with focal neurological features

**Which associated symptoms are present?** Facial weakness, numbness, speech change, or double vision
**How quickly did it develop?** Instantly or on awakening / Over hours to three days

**Emergency warning pattern — Now**

Sudden hearing loss with focal neurological symptoms requires emergency vascular and neurological assessment.

**Differential to review:**

- Vascular, neurological, traumatic, or ototoxic cause
- Sudden sensorineural hearing loss

**Action:** Call 911 or go to the nearest emergency department now. Do not drive yourself.

## Pattern 4: Conductive ear pattern

**Which associated symptoms are present?** Ear pain, discharge, fullness, or recent infection
**How quickly did it develop?** Over hours to three days / Over more than three days

**Urgent assessment pattern — Same day**

Pain, discharge, or fullness directs otoscopic and conductive assessment while preserving urgency for sudden loss.

**Differential to review:**

- Cerumen, otitis media, or conductive ear disease

**Action:** Arrange same-day medical assessment. If symptoms are rapidly worsening or severe, call 911.

## Pattern 5: Exposure-associated hearing change

**Was there trauma, barotrauma, loud noise, a new ototoxic medicine, or a recent procedure?** Yes

**Urgent assessment pattern — Same day**

Trauma, pressure, noise, procedure, or ototoxic exposure needs prompt cause-specific assessment.

**Differential to review:**

- Vascular, neurological, traumatic, or ototoxic cause

**Action:** Arrange same-day medical assessment. If symptoms are rapidly worsening or severe, call 911.

## Unresolved-information pathway: The entries need structured in-person characterization.

**Urgent assessment pattern — Same day**

Do not guess missing answers or convert uncertainty into reassurance. Document what is unknown, perform an in-person examination, clarify the timeline with a witness or records when available, and reassess if any new feature appears.

**Action:** Arrange same-day medical assessment. If symptoms are rapidly worsening or severe, call 911.

# Section 3: Clinical review

Diagnostic modules and focused investigation logic

The examination comes before a test list. Select investigations only after localization, urgency, comorbidity, pregnancy status, renal function, anticoagulation, and prior results have been considered.

## 3.1 Sudden sensorineural hearing loss

**Discriminating features:** A rapid unilateral sensorineural deficit is a time-critical otologic presentation even without pain or vertigo.

**Logical investigations:** Same-day urgent ENT assessment and prompt audiometry; otoscopy alone cannot exclude sensorineural loss.

## 3.2 Cerumen, otitis media, or conductive ear disease

**Discriminating features:** Fullness, pain, discharge, visible obstruction, or conductive examination findings support an outer/middle-ear mechanism.

**Logical investigations:** Otoscopy and audiologic assessment; sudden subjective blockage still requires sensorineural loss to be excluded.

## 3.3 Vestibular schwannoma or another retrocochlear process

**Discriminating features:** Asymmetric loss, tinnitus, imbalance, or cranial-nerve findings may indicate a retrocochlear lesion.

**Logical investigations:** Audiometry and clinician-directed MRI of the internal auditory pathways.

## 3.4 Vascular, neurological, traumatic, or ototoxic cause

**Discriminating features:** Vertigo with focal signs, trauma, barotrauma, noise, or drug exposure changes the assessment pathway.

**Logical investigations:** Emergency neurological assessment for focal signs; targeted ear, vestibular, imaging, and medication review otherwise.

## Reassessment and documentation

- If the symptom pattern changes, repeat the safety screen and timeline rather than carrying forward an earlier interpretation.
- If a test is unrevealing but the deficit persists or progresses, revisit localization and seek specialist review; a normal result does not automatically end assessment.
- If symptoms resolve, document duration, completeness of recovery, recurrence, and any residual deficit. Resolved sudden focal symptoms can still require urgent vascular assessment.
- If the history and examination conflict, obtain collateral information and in-person review rather than forcing a single diagnostic label.

# Selected references

Sources provide background standards and do not replace local emergency pathways or current specialist guidance. Accessed October 2026.


1. Chandrasekhar SS, Schwartz SR, Bontempo LJ, et al.. (2019). *Clinical Practice Guideline: Sudden Hearing Loss (Update)*. https://pubmed.ncbi.nlm.nih.gov/31369359/
2. National Institute for Health and Care Excellence. (2018). *Hearing loss in adults: assessment and management (NG98)*. https://www.nice.org.uk/guidance/ng98