

Evidence Discussion (HD 27.1)

- A complete history and otologic exam should be performed prior to advanced imaging for the workup of hearing loss. Formal audiometric testing is also necessary to determine whether the hearing loss is conductive, sensorineural or mixed.
- MRI brain is generally preferred for sensorineural and mixed hearing loss, particularly for unilateral hearing loss, congenital loss, or for surgical planning.
- CT orbits/temporal bone is preferred for cases of conductive hearing loss, trauma, or suspected bony or middle ear disorders.
- Both may be supported for surgical planning (cochlear implants, petrous apex disorders)

References

1. Expert Panel on Neurologic Imaging:, Sharma A, Kirsch CFE, et al. ACR Appropriateness Criteria® Hearing Loss and/or Vertigo. J Am Coll Radiol. 2018;15(11S):S321-S331. doi:10.1016/j.jacr.2018.09.020
2. Isaacson J, Vora NM. Differential diagnosis and treatment of hearing loss. American Family Physician. 2003 Sep 15;68(6):1125-32
3. Chandrasekhar SS, Do BST, Schwartz SR, et al. Clinical Practice Guideline: Sudden Hearing Loss (Update). Otolaryngology–Head and Neck Surgery. 2019;161(1_suppl). doi:10.1177/0194599819859885
4. ACR-ASNR-SPR Practice Parameter for the Performance of Computed Tomography (CT) of the Extracranial Head and Neck Revised 2021. (Resolution 5). [https://www.acr.org/-/media/ACR/Files/Practice Parameters/CT-Head-Neck](https://www.acr.org/-/media/ACR/Files/Practice%20Parameters/CT-Head-Neck)
5. Expert Panel on Neurologic Imaging: Jain, V, Policeni B, et al. ACR Appropriateness Criteria® Tinnitus. 2023 <https://acsearch.acr.org/docs/3094199/Narrative/>
6. Tunkel DE, Bauer CA, Sun GH, Rosenfeld RM, Chandrasekhar SS, Cunningham ER Jr, Archer SM, Blakley BW, Carter JM, Granieri EC, Henry JA, Hollingsworth D, Khan FA, Mitchell S, Monfared A, Newman CW, Omole FS, Phillips CD, Robinson SK, Taw MB, Tyler RS, Waguespack R, Whamond EJ. Clinical practice guideline: tinnitus executive summary. Otolaryngol Head Neck Surg. 2014 Oct;151(4):533-41. doi: 10.1177/0194599814547475