



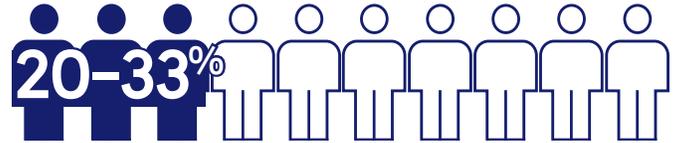
# The Value of Audiologists in the Assessment and Treatment of Balance and Dizziness



Vestibular Testing and Treatment by an Audiologist Promotes Efficient Patient Care and Improves Outcomes.



adults in the United States report a balance or dizziness problem in the past 12 months.<sup>1</sup>



of patients in balance/dizziness clinics have BPPV with a lifetime prevalence of 2.4%.<sup>2,3,4</sup>



Many patients with balance or dizziness problems receive inefficient and/or unnecessary services leading to a costly care pathway.

- These patients are often seen by **three or more** health professionals.<sup>5,6</sup>
- Patients with diagnosed BPPV undergo unnecessary imaging (19%) and are prescribed ineffective medication (**19%–50%**).<sup>5,7</sup>
- Treating BPPV costs approximately **\$8,247** per year per patient.<sup>8</sup>
- Unnecessary care (e.g., excessive appointments, unwarranted imaging tests, inappropriate treatments) costs an average of **\$2,009.63**.<sup>6</sup>
- Although nearly **90%** of primary care physicians agree that assessing balance is important when patients report symptoms, approximately **55%** indicate that they do not have time to include a balance screening during routine care.

## The Audiologist's Role

- Assess vestibular and balance function, 
- Provide differential diagnosis, including for BPPV,
- Treat BPPV with canalith repositioning maneuvers, &
- Refer patients to other providers as needed.<sup>10,11</sup>



Audiologist involvement in vestibular testing and treatment improves patient outcomes, referral pathways, and interdisciplinary care.

- **100%** of patients report reduction or complete resolution of BPPV symptoms with audiological care.<sup>\*12</sup>
- **63.9%–94.2%** of BPPV patients experience symptom resolution after canalith repositioning maneuvers and are **17.3%–55%** less likely to experience relapse of symptoms than those who do not receive treatment.<sup>13,14,15,16</sup>
- Patients are seen an average of **23** days sooner with triage through an audiologist.<sup>17</sup>
- **93%** of patients receive a definitive diagnosis after a single appointment in a multidisciplinary care clinic with an audiologist.<sup>\*18</sup>
- *The diagnostic accuracy of BPPV increases 59%* when the initial examination includes an audiologist.<sup>\*19</sup>
- **51%** of patients are treated and discharged after the first visit when care is triaged through an audiologist.<sup>\*20</sup>
- Secondary referrals decrease **36%**, with **78%** of patients managed without a referral to an otolaryngologist.<sup>\*7,20</sup>

## References

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- <sup>1</sup> National Institute on Deafness and Other Communication Disorders. (2017). NIDCD strategic plan (FY 2017-2021). <https://www.nidcd.nih.gov/sites/default/files/Documents/NIDCD-StrategicPlan2017-508.pdf>
- <sup>2</sup> Neuhauser, H., Leopold, M., Von Brevern, M., Arnold, G., & Lempert, T. (2001). The interrelations of migraine, vertigo, and migrainous vertigo. *Neurology*, 56(4), 436-441. doi: [10.1212/wnl.56.4.436](https://doi.org/10.1212/wnl.56.4.436)
- <sup>3</sup> Parker, I. G., Hartel, G., Paratz, J., Choy, N. L., & Rahmann, A. (2019). A systematic review of the reported proportions of diagnoses for dizziness and vertigo. *Otology & Neurotology*, 40(1), 6-15. doi: [10.1097/mao.0000000000002044](https://doi.org/10.1097/mao.0000000000002044)
- <sup>4</sup> von Brevern, M., Radtke, A., Lezius, F., Feldmann, M., Ziese, T., Lempert, T., & Neuhauser, H. (2007). Epidemiology of benign paroxysmal positional vertigo: A population based study. *Journal of Neurology, Neurosurgery & Psychiatry*, 78, 710-715. doi: [10.1136/jnnp.2006.100420](https://doi.org/10.1136/jnnp.2006.100420)
- <sup>5</sup> Grill, E., Strupp, M., Müller, M., & Jahn, K. (2014). Health services utilization of patients with vertigo in primary care: a retrospective cohort study. *Journal of Neurology*, 261(8), 1492-1498. doi: [10.1007/s00415-014-7367-y](https://doi.org/10.1007/s00415-014-7367-y)
- <sup>6</sup> Li, J. C., Li, C. J., Epley, J., & Weinberg, L. (2000). Cost-effective management of benign positional vertigo using canalith repositioning. *Otolaryngology-Head and Neck Surgery*, 122(3), 334-339. doi: [10.1016/s0194-5998\(00\)70043-x](https://doi.org/10.1016/s0194-5998(00)70043-x)
- <sup>7</sup> Newman-Toker, D. E., Camargo, Jr, C. A., Hsieh, Y. H., Pelletier, A. J., & Edlow, J. A. (2009). Disconnect between charted vestibular diagnoses and emergency department management decisions: A cross-sectional analysis from a nationally representative sample. *Academic Emergency Medicine*, 16(10), 970-977. doi: [10.1111/j.1553-2712.2009.00523.x](https://doi.org/10.1111/j.1553-2712.2009.00523.x)
- <sup>8</sup> Jeong, S. S., Simpson, K. N., Johnson, J. M., & Rizk, H. G. (2022). Assessment of the cost burden of episodic recurrent vestibular vertigo in the US. *JAMA Otolaryngology-Head & Neck Surgery*, 148(12), 1103-1110. doi: [10.1001/jamaoto.2022.3247](https://doi.org/10.1001/jamaoto.2022.3247)
- <sup>9</sup> Johnson, C. E., Danhauer, J. L., Koch, L. L., Celani, K. E., Lopez, I. P., & Williams, V. A. (2008). Hearing and balance screening and referrals for Medicare patients: A national survey of primary care physicians. *Journal of the American Academy of Audiology*, 19(2), 171-190. doi: [10.3766/jaaa.19.2.7](https://doi.org/10.3766/jaaa.19.2.7)
- <sup>10</sup> American Speech-Language-Hearing Association. (2018). *Scope of practice in audiology* [Scope of Practice]. Available from [www.asha.org/policy/](http://www.asha.org/policy/)
- <sup>11</sup> American Academy of Audiology (2004). Scope of Practice. Available from <https://www.audiology.org/practice-guideline/scope-of-practice/>
- <sup>12</sup> Rodriguez, A. I., Zupancic, S., Song, M. M., Cordero, J., Nguyen, T. Q., & Seifert, C. (2017). Importance of an interprofessional team approach in achieving improved management of the dizzy patient. *Journal of the American Academy of Audiology*, 28(03), 177-186. doi: [10.3766/jaaa.15054](https://doi.org/10.3766/jaaa.15054)
- <sup>13</sup> Salvinelli, F., Casale, M., Trivelli, M., D'Ascanio, L., Firrisi, L., Lamanna, F., Greco, F. & Costantino, S. (2003). Benign paroxysmal positional vertigo: A comparative prospective study on the efficacy of Semont's maneuver and no treatment strategy. *La Clinica Terapeutica*, 154(1), 7-12.
- <sup>14</sup> Salvinelli, F., Trivelli, M., Casale, M., Firrisi, L., Di Peco, V., D'Ascanio, L., Greco, F., Miele, A., Petitti, T., & Bernabei, R. (2004). Treatment of benign positional vertigo in the elderly: A randomized trial. *The Laryngoscope*, 114(5), 827-831. doi: [10.1097/00005537-200405000-00007](https://doi.org/10.1097/00005537-200405000-00007)
- <sup>15</sup> von Brevern, M., Seelig, T., Radtke, A., Tiel-Wilck, K., Neuhauser, H., & Lempert, T. (2006). Short-term efficacy of Epley's manoeuvre: A double-blind randomised trial. *Journal of Neurology, Neurosurgery & Psychiatry*, 77(8), 980-982. doi: [10.1136/jnnp.2005.085894](https://doi.org/10.1136/jnnp.2005.085894)
- <sup>16</sup> Lee, J. D., Shim, D. B., Park, H. J., Song, C. I., Kim, M. B., Kim, C. H., ... & Jeon, E. J. (2014). A multicenter randomized double-blind study: comparison of the Epley, Semont, and sham maneuvers for the treatment of posterior canal benign paroxysmal positional vertigo. *Audiology and Neurotology*, 19(5), 336-341. doi: [10.1159/000365438](https://doi.org/10.1159/000365438)
- <sup>17</sup> Riska, K. M., Akin, F. W., Williams, L., Rouse, S. B., & Murnane, O. D. (2017). A benign paroxysmal positional vertigo triage clinic. *American Journal of Audiology*, 26(4), 481-485. doi: [10.1044/2017\\_aj-a-16-0119](https://doi.org/10.1044/2017_aj-a-16-0119)
- <sup>18</sup> Trindade, A., & Yung, M. W. (2014). Consultant-led, multidisciplinary balance clinic: process evaluation of a specialist model of care in a district general hospital. *Clinical Otolaryngology*, 39(2), 95-101. doi: [10.1111/coa.12236](https://doi.org/10.1111/coa.12236)
- <sup>19</sup> Gawankar, S. V. (2007). Effects of timely otolaryngological/audiological intervention on patients with acute vertigo due to peripheral vestibular disorders. doi: [10.26021/6253](https://doi.org/10.26021/6253)
- <sup>20</sup> Kasbekar, A. V., Mullin, N., Morrow, C., Youssef, A. M., Kay, T., & Lesser, T. H. (2014). Development of a physiotherapy led balance clinic: The Aintree model. *The Journal of Laryngology & Otology*, 128(11), 966-971. doi: [10.1017/s0022215114002060](https://doi.org/10.1017/s0022215114002060)