Audience: Senior Care Providers (community administrators, nurses, in-home care providers, etc.)

FOR SENIOR LIVING PROVIDERS: IMPROVED BALANCE REDUCES FALL RISK

Multiple research studies have linked social isolation of older adults with risk of poorer health outcomes – and has been well-documented in scholarly articles as well as the national press.¹ What is less well-documented is the relationship between hearing loss and multiple comorbidities, as outlined by Harvey Abrams.² One of the co-morbidity associations with untreated hearing loss is fall risk – and specifically how that may be a significant contributor to health, social, economic and emotional consequences." Consider that:³

As individuals age, likelihood of hearing loss grows. One-third of Americans between 65 and 74 have hearing loss, and for more than half of individuals aged 75+ that hearing loss is significant, according to NIDCD.⁴ There are multiple issues linked with hearing loss in older adults, including increased risk of social isolation and loneliness, and impact on health and wellbeing, including the potential risk of cognitive decline and subsequent dementia, but also with fall risk. According to the National Council on Aging, falls are the leading cause of fatal injury and the most common cause of nonfatal trauma-related hospital admissions among older adults.⁵ Researchers have correlated hearing loss with a heightened risk of falling. A Johns Hopkins researcher studied and validated the hearing loss connection in middle-aged adults.⁶ Another study at Washington University in St Louis verified the link for adults aged 65-91 with 14 participants aged 65+. According to the study author, Dr. Timothy Hullar: "The participants appeared to be using the sound information coming through their hearing aids as auditory reference points or landmarks to help maintain balance. It's a bit like using your eyes to tell where you are in space. If we turn out the lights, people sway a little bit — more than they would if they could see. This study suggests that opening your ears also gives you information about balance."

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Falling and long lie times increase risk of debilitating injury. As the risk of falling worsens, so too does the risk of a long lie time – being unable to get up and lacking the help required to assist. In a University of Cambridge study, "Those who lay on the floor for a long time, many of whom had cognitive problems, were at the greatest risk for serious injury, repeated falls, hospital admission, and long-term care during the year of follow-up." Wearables, like medical alert bands or pendants may help with notification and fall detection.⁸ Even smartphone apps may have built in fall detection capability that enables them to alert and notify in emergencies.⁹ Using hearing aids for 30 days may reduce the risk of falls. These very small studies have helped audiologists promote the use of hearing aids as a way to improve balance and presumably reduce the risk of falls, claiming that they "act as auditory reference points or landmarks to help maintain balance." Particularly notable among the study observations -- the number of seconds that a patient-maintained stability when using hearing aids. Beyond diagnostics of level of hearing loss and appropriate correction, senior living care professionals should offer assessment of gait and balance, taking specific actions, whether offering exercises and strength training to improve both. 10

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¹ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3625264/

² http://www.hearingreview.com/2017/11/hearing-loss-associated-comorbidities-know/

³ https://www.nytimes.com/2016/12/22/upshot/how-social-isolation-is-killing-us.html

⁴ https://www.nidcd.nih.gov/health/age-related-hearing-loss

⁵ https://www.ncoa.org/news/resources-for-reporters/get-the-facts/falls-prevention-facts/

⁶ https://source.wustl.edu/2014/12/hearing-aids-may-improve-balance/

⁷ http://www.chicagotribune.com/lifestyles/health/sns-health-older-people-fall-research-story.html

⁸ https://www.consumerreports.org/medical-alert-systems/how-to-choose-a-medical-alert-system/

⁹ https://reviewster.com/best-fall-detection-apps-for-ios-and-android/

 $^{^{10}\} https://www.ncoa.org/healthy-aging/falls-prevention/preventing-falls-tips-for-older-adults-and-caregivers/6-steps-to-protect-your-older-loved-one-from-a-fall/$