

3.6 years. ECI was defined based on 1 standard deviation below age- and race-specific means in Card Rotations or California Verbal Learning Test immediate recall. Cox proportional hazard models examined the risk of ECI for each sensory impairment and across categories of impairments. Vision impairment (vs. no vision impairment) was associated with a 70% greater risk of ECI (HR=1.70, $p=0.05$). Participants with 1 or ≥ 2 sensory impairments had triple the risk of ECI (HR=3.74 and 3.44, $p=0.008$ and 0.02 , respectively) compared to those without impairment. Future studies are needed to examine whether treatment for sensory impairments can modify these risks.

SENSORY IMPAIRMENT AND BETA-AMYLOID DEPOSITION IN THE BALTIMORE LONGITUDINAL STUDY OF AGING

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Studies have demonstrated a link between sensory impairment and dementia risk, but little is known about the presence of beta-amyloid plaques in individuals with single and multisensory impairments. Sensory function (combinations of vision, hearing, vestibular function, and proprioception) and amyloid PET imaging were measured in 170 BLSA participants (age=78 \pm 9 years; 53% women; 77% white; 28% amyloid positive) from 2012 to 2019. Log-binomial regression models were used to examine the prevalence ratios (PR) of amyloid positivity for individual sensory impairments and across categories of impairments. While crude associations indicate associations of vision impairment (PR=1.72, $p=0.04$) and impairments in all four senses (PR=2.38, $p=0.03$) with amyloid positivity, these associations were insignificant after adjusting for age, sex, race, and education. There were no other crude and adjusted associations. These results suggest sensory impairments may be related to dementia independent of AD pathology. Future studies with larger sample sizes are warranted.

MOTOR AND SENSORY FUNCTION AS PREDICTORS OF MCI AND DEMENTIA IN THE BALTIMORE LONGITUDINAL STUDY OF AGING (BLSA)

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Motor and sensory impairments are linked with dementia risk, but whether there is a joint effect of deficits in motor and sensory function is unknown. We analyzed 649 BLSA participants (aged 72 \pm 11 years; 55% women; 68% white) who had concurrent baseline 6-meter usual gait speed and

sensory function (vision, hearing) between 2012-2019. Mild cognitive impairment (MCI) and dementia were adjudicated during an average follow-up of 3 years. We examined the association between baseline gait speed, z-scored sensory function, and a gait*sensory interaction with risk of MCI/dementia using Cox proportional hazard models, adjusted for demographics and chronic conditions. Each .01 m/s faster baseline gait was associated with a reduced risk (HR:0.98 (0.96-0.99)) of MCI/dementia, and each 1 SD higher in hearing and vision z-score was associated with an increased risk (HR:1.84 (1.1-3.1)) increased risk. There was no significant interaction, suggesting motor and sensory impairments may be independently associated with MCI/dementia risk.

ASSOCIATION OF HEARING IMPAIRMENT WITH HIGHER LEVEL PHYSICAL FUNCTIONING AND WALKING ENDURANCE

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The longitudinal associations between hearing impairment and higher-level functional measures and the potential confounding role of vestibular function have not been assessed. We investigated these associations in 831 participants of the Baltimore Longitudinal Study of Aging (2012-2019). Hearing was measured using pure-tone audiometry and categorized using WHO standards. Physical function was assessed with the Health Aging and Body Composition Physical Performance Battery (HABCPPB, higher=better) and walking endurance with time to walk 400 meters. Multivariable regression models tested the hypotheses that participants with hearing impairment have poorer physical outcomes. In a subset, we further adjusted for vestibular function. Hearing impairment was associated with decrements in higher-level physical performance and walking endurance, and faster decline over time, regardless of vestibular function. Among participants with any hearing impairment, hearing aid users were faster in the 400-m walk. Early screening for higher-level functional loss among older adults with hearing loss is warranted.

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COVID-19 and Community Dwelling Adults

AGING THROUGH THE TIME OF COVID-19: HEALTHCARE ACCESS FOR OLDER ADULTS LIVING WITH CHRONIC CONDITIONS

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