Can active lifestyle protect against dementia?

Session 11B: Lifestyle and diet

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**Introduction:** Physical activity and physical fitness are linked to decreased dementia risk and mortality due to dementia, but the effects may vary depending on personal characteristics, chronic conditions and age at the time of activity/fitness assessment.

**Objectives:** This is a brief overview of current findings on the association between physical activity, physical fitness and dementia and dementia-related mortality risk.

**Methods:** We investigated the associations between leisure-time physical activity and self-rated physical fitness from mid- to late life, the risk of dementia, and the role chronic conditions, body mass index, sex, and APOE during 28-year follow-up using the Cardiovascular Risk Factors, Aging, and Dementia (CAIDE) study (n=1511). Using the National FINRISK study (n=62204) we investigated the longitudinal association between self-rated physical fitness and dementia-related mortality risk, taking into account the modifying effects of age, gender, physical activity and chronic conditions.

**Results:** In the CAIDE study, persons reporting moderate and low levels of midlife physical activity had higher risk of dementia compared to persons with high activity level. The benefits of physical activity were more pronounced among men, overweight individuals, and APOE ε4 non-carriers. Also poor self-rated physical fitness significantly increased dementia risk. This association was significant in APOE ε4 non-carriers, men and people with chronic conditions. Poor fitness also predicted mortality due to dementia.

**Conclusions:** Low physical activity level and poor physical fitness are risk factors for dementia and dementia-related mortality. Preventive interventions increasing physical activity and physical fitness level should be targeted to at-risk individuals.