among postmenopausal women. Whether reproductive history is related to motor decline remains poorly investigated. Analyses are based on elderly women from the Three-City Study followed over 10y. We examined the cross-sectional and longitudinal associations of age at menopause, oophorectomy, and parity with gait speed (GS, cm/s) and disability. One-year older age at menopause was associated with faster baseline GS (beta: 0.21; 95% CI: 0.01;0.42) and lower disability hazard over the follow-up (HR=0.98; 95%CI:0.97;0.99). Oophorectomy was associated with slower baseline GS (beta:-5.07; 95%CI:-9.07;-1.07). There was no association of parity with GS and disability. Higher endogenous estrogen exposure during reproductive life may be protective for motor function in the elderly. These results are consistent with the hypothesis of a cardiovascular component of motor function.

GAIT SPEED AND DECLINE IN GAIT SPEED AS PREDICTORS OF INCIDENT DEMENTIA

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Previous studies showed that baseline slow gait speed (GS) is associated with an increased risk of incident dementia. It is unknown what is the added the value of measuring GS repeatedly in order to identify those at higher risk. We examined the relationship between baseline GS, change in GS, and the hazard of incident dementia in community-dwelling elderly people (N=3,663) dementia-free at baseline (mean age, 73.5y) and followed over 9y, from the prospective French Three-City study cohort. 296 participants developed dementia during the follow-up. Gait was slower up to 7 years prior to the clinical dementia onset. GS decline was more accelerated in those who later developed dementia. Independently of baseline gait speed, those who experienced a steeper decline over the follow-up had an increased dementia risk. Our findings highlight the benefit of using repeated measures in order to identify those with a steeper GS decline and higher dementia risk.

TRAJECTORIES OF UNHEALTHY BEHAVIORS IN MIDLIFE AND RISK OF DISABILITY AT OLDER AGES

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Most evidence on the association between unhealthy behaviors and disability comes from studies in the elderly, where reverse causation and selection bias may distort associations. We examined associations of trajectories of four health behaviors (physical activity, diet, smoking, alcohol), starting in midlife and over 20y, with subsequent disability (range=54-84y) in the Whitehall II cohort study. Disability was assessed three times over 8y, and behavior trajectories were defined using group-based trajectory models. GEE models were used to examine their independent associations with disability. Of 6,825 participants, 19.2% were disabled at least once. Participants with persistent inactivity or declining physical activity, recent ex- or current-smokers, and persistent/recent abstainers or persistent heavy alcohol drinkers had higher disability risk; fruit/vegetable consumption was not associated with disability. Disability risk increased with the number of unhealthy behaviors trajectories. Unhealthy behavior trajectories in midlife are associated with greater disability risk later in life.

RISK FACTORS TRAJECTORIES PRIOR TO DEMENTIA DIAGNOSIS: BMI AND PHYSICAL ACTIVITY

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Dementia is preceded by a preclinical period that unfolds over several years, and affects various processes, including risk factors levels. Thus, the risk factor-dementia association drawn from studies based on older adults may be subject to reverse causation biases. We aim to present trajectories of two risk factors, physical activity and BMI, for which associations with dementia remain unclear, in the 28-year period preceding dementia diagnosis. We will present results from the Whitehall II study where risk factors were assessed up to 7 times over 28 years among 329 dementia cases, assessed via electronic health records, and 1974 controls. We will show that both BMI and physical activity trajectories are modified over the course of 28 years, particularly in the decade preceding dementia. Thus, when these risk factors are measured in the 10 years before diagnosis their associations with dementia are different to that when they are assessed in midlife.

SESSION 320 (PAPER)

PHYSIOLOGICAL FACTORS AND HEALTH OUTCOMES

HIV INFECTION AND OLDER ADULTS IN SOUTH AFRICA

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The number of Human Immunodeficiency Virus (HIV) infected adults aged over 50 years in South Africa is increasing. There is limited knowledge about how this population differs from younger HIV positive adults and whether there are different treatment outcomes.

The study objective was to explore dissimilarities between younger and older HIV positive adults at initiation of Antiretroviral Therapy (ART) with regard to their baseline demographic, clinical and laboratory variables and then compare 12-month ART outcomes.

We did a retrospective record review of a large single site and included treatment-naïve HIV positive adult patients at initiation of ART. Patients aged 18–40 years (n=10726) were