

Lower social class throughout life linked to higher risk of cognitive impairment

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People in lower socioeconomic positions throughout their lives have a

higher risk of developing mild cognitive impairment by the age of 50, according to a new study led by researchers at UCL.

The [study](#), published in the *Journal of Epidemiology and Global Health*, found that individuals who moved upward or downward in terms of their socioeconomic position were also at a higher risk of impairment compared to those who maintained a constant higher socioeconomic status.

The associations remained true after accounting for education level and health behaviors such as smoking status and alcohol consumption.

Individuals whose socioeconomic status remained low throughout different stages of their lives (birth, childhood and adulthood) had an 85% higher risk of [mild cognitive impairment](#) compared to those whose socioeconomic status remained high.

Lower socioeconomic status across the [life course](#), the researchers noted, is associated with higher levels of stress and inflammation, which can have adverse effects on mental and cerebrovascular (conditions that affect blood flow to the brain) health, leading to cognitive impairment and dementia.

The researchers used data from 6,590 participants of the National Child Development Study (NCDS), also known as the 1958 British Birth Cohort. The NCDS is a birth cohort study that follows the lives of 17,415 people born in England, Scotland and Wales in one particular week of March 1958. It investigates a wide range of topics, including social mobility, health, education, and employment.

The new study used data relating to socioeconomic factors from various time points during birth, childhood, and adulthood to construct life-course socioeconomic position measures.

Information about cohort members' father's job at birth was predominantly used to assess socioeconomic position during childhood. Professional or non-manual jobs equated to a high socioeconomic position, while manual or non-skilled jobs were interpreted as low.

First author Chanthie Sahota, who conducted the research as part of a Master's in Social Epidemiology at UCL, said, "The study incorporates a life-course perspective when examining the effects of socioeconomic position on the development of mild cognitive impairment in the later life of adults in Great Britain, which has not been previously investigated.

"By using a life-course approach, the study was able to provide a more comprehensive analysis of the potential long-term effects of socioeconomic position, including the unique impact of [social mobility](#) between childhood and adulthood on cognitive health in later life.

"Furthermore, the findings of an inverse association between life-course socioeconomic position and mild cognitive impairment demonstrate the importance of adopting a life-course approach to effectively target social determinants of health across the lifespan."

Dr. Dorina Cadar (UCL Behavioural Science & Health and Brighton and Sussex Medical School), the senior author, said, "This study tracked people across 65 years of their lives and benefits from a life course investigation of cognitive assessments, education, lifestyle behaviors, as well as mental health, high blood pressure and diabetes.

"Our results showed a particular advantage for individuals with a stable higher socioeconomic status across life, who often have better access to quality education and resources that can positively influence cognitive development and provide opportunities for intellectual stimulation.

"In contrast, adverse childhood experiences associated with lower [socioeconomic status](#) are often linked with limited access to resources or educational opportunities and may have lasting effects on cognitive function, leading to mild cognitive impairment, as we have seen in this study.

"While we adjusted for [education level](#) and health behaviors in our study, details about health behaviors were only captured at one point in time, and it is likely that these factors nonetheless account for some part of the associations we observed.

"Socioeconomic status can influence health behaviors such as smoking, diet, and physical activity, which in turn can contribute to cardiovascular and metabolic conditions that are risk factors for cognitive impairment in a negative spiral.

"Understanding these life course mechanisms helps highlight the importance of addressing social determinants of health and promoting policies that aim to reduce health inequalities."

More information: Chanthie Menika Sahota et al, Life-Course Socioeconomic Position and Mild Cognitive Impairment in Midlife: Evidence from the 1958 British Birth Cohort, *Journal of Epidemiology and Global Health* (2024). [DOI: 10.1007/s44197-023-00173-6](https://doi.org/10.1007/s44197-023-00173-6)

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