

## Preventive strategies needed to reduce risk of dementia, stroke



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It is estimated that one in two women and one in three men will likely be diagnosed with dementia, Parkinson's disease, or stroke in their lifetime. The estimate was made by Dutch researchers after monitoring the neurological health of more than 12,000 people in the Rotterdam Study between 1990 and 2016.

The findings highlight the need for preventive strategies which have the potential to reduce lifetime risk by more than 50 percent for those aged 85+, according to the research published in *Journal of Neurology, Neurosurgery & Psychiatry*.

The Rotterdam Study has been looking at the incidence of, and influential factors behind, diseases of ageing in the general population. Participants were aged at least 45 years old when they were recruited, and nearly 58 percent of them were women. Upon recruitment, participants were given a thorough health check, which was repeated every four years. Family doctor health records were also scrutinised for signs of disease or diagnoses arising between the four yearly check-ups.

Monitoring for dementia, parkinsonism, and stroke continued until death, or 1 January 2016, whichever came first. Between 1990 and 2016, 5,291 people died, 3,260 of whom had not been diagnosed with any neurological disease. But 1,489 people were diagnosed with dementia, mostly Alzheimer's disease (just under 80 percent); 1,285 had a stroke, nearly two thirds of which (65%) was caused by a blood clot (ischaemic); and 263 were diagnosed with parkinsonism.

A higher prevalence of high blood pressure, abnormal heart rhythm (atrial fibrillation), high cholesterol and type 2 diabetes was evident at the start of the monitoring period among those subsequently diagnosed with any of the three conditions.

This gender difference was largely driven by women being at heightened risk of developing dementia before men, although the researchers noted other gender differences in risk (i.e., more men likely to have a stroke at younger ages than women).

The researchers calculated that if the onset of dementia, stroke, and parkinsonism were delayed by 1 to 3 years, the remaining lifetime risk could, in theory, be reduced by 20 percent in 45 year-olds, and by more than 50 percent in those aged 85+. In addition, a delay of only a few years for one disease could have a significant impact on combined lifetime risk, suggest the researchers.

Since the study included only people of European ancestry with a relatively long life expectancy, the researchers say the results might not be applicable to other ethnicities/populations.

This research is observational, so no definitive conclusions can be drawn. Still, the researchers conclude: "These findings strengthen the call for prioritising the focus on preventive interventions at population level which could substantially reduce the burden of common neurological diseases in the ageing population."

Source: [BMJ](#)

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