

# Age, sex, APOE genotype identify alzheimer's, dementia risk

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(HealthDay)—Age, sex and apolipoprotein E (*APOE*) genotype can

identify groups at high 10-year risk for Alzheimer's disease and all dementia, according to a study published Sept. 4 in *CMAJ*, the journal of the Canadian Medical Association.

Katrine L. Rasmussen, M.D., Ph.D., from Copenhagen University Hospital in Denmark, and colleagues used data from the Copenhagen General Population Study (2003 to 2014), the Copenhagen City Heart Study (1991 to 1994 and 2001 to 2003), and the Danish National Patient Registry (up to Nov. 10, 2014) to determine the absolute 10-year risk of [dementia](#) by age, sex, and *APOE* genotype.

The researchers found that among 104,537 individuals, the absolute 10-year risk of Alzheimer's disease in 3,017 women and men who were carriers of the *APOE*  $\epsilon$ 44 genotype was 7 percent and 6 percent, respectively, at age 60-69 years; 16 percent and 12 percent at age 70-79 years; and 24 percent and 19 percent at age 80 years and older. The corresponding values for all dementia for women and men, respectively, were 10 percent and 8 percent, 22 percent and 19 percent, and 38 percent and 33 percent. For all dementia, adjusted hazard ratios (HRs) increased by genotype, from genotype  $\epsilon$ 22 to  $\epsilon$ 32 to  $\epsilon$ 33 to  $\epsilon$ 42 to  $\epsilon$ 43 to  $\epsilon$ 44).  $\epsilon$ 44 carriers were more likely than  $\epsilon$ 33 carriers to develop Alzheimer's disease (adjusted HR, 8.74), [vascular dementia](#) (adjusted HR, 2.87), unspecified dementia (adjusted HR, 4.68), and all dementia (adjusted HR, 5.77).

"Age, sex and *APOE* [genotype](#) robustly identify high-risk groups for Alzheimer disease and all dementia," conclude the authors.

**More information:** [Abstract/Full Text](#)

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