

Gene variant may protect memory and thinking skills in older people

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New research shows a gene variant may help protect the memory and thinking skills of older people. The research will be published in the April 20, 2010, issue of *Neurology*, the medical journal of the American Academy of Neurology.

"This is the first study to identify a protective relationship between this [gene variant](#) and cognitive function," said study author Alexandra Fiocco, PhD, with the University of California, San Francisco.

For the study, researchers followed 2,858 African-American and Caucasian people between the ages of 70 and 79 for eight years. Participants' DNA was analyzed for the catechol-O-methyltransferase (COMT) gene, a gene shown in studies to affect [thinking skills](#). The allelic variants associated with this gene are the Val and Met variants.

The group was also given two types of thinking tests. One test measured skills such as language, concentration and memory. The other test measured response time, attention and judging sights and objects.

The study found that the Met variant of the COMT gene was linked to a greater decline in thinking skills over the years, while the Val variant had a protective effect on thinking skills, with lower declines over the years. In Caucasians, those with the Val variant scored 33 percent better over time than those without the variant. Among African-Americans, people with the Val allele gene variant scored 45 percent better over time than those who did not have the variant.

"This finding is interesting because in younger people, the Val [genotype](#) has been shown to have a detrimental effect," Fiocco said. "But in our study of older people, the reverse was true. Finding connections between this gene, its variants and cognitive function may help scientists find new treatments for the prevention of [cognitive decline](#)." Fiocco added, however, that the results need to be replicated by others before the field can be confident that the Met variant of the COMT gene plays a role in late life cognitive decline.

Provided by American Academy of Neurology

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