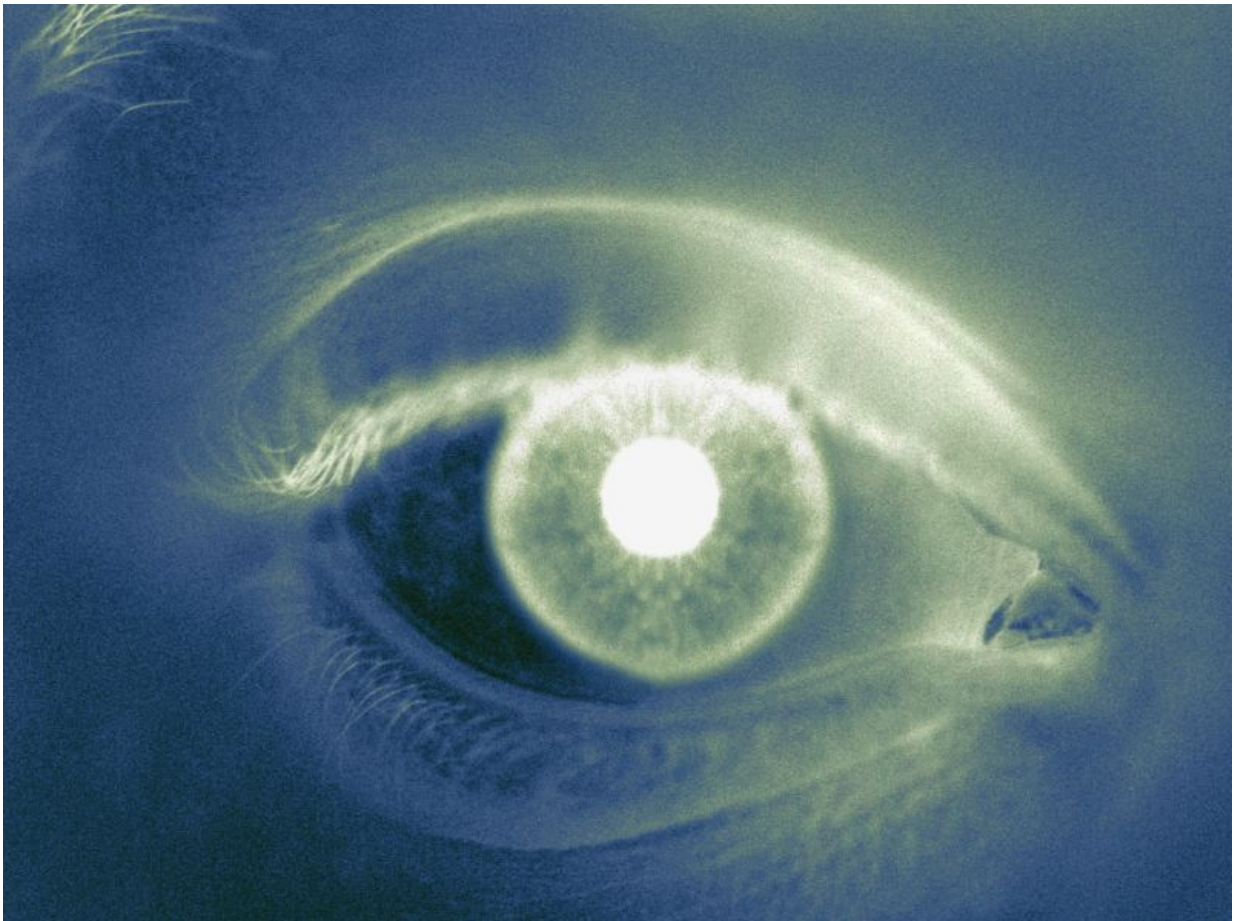


# MTHFR polymorphism, higher homocysteine up cataract risk

March 21 2016

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(HealthDay)—Methylenetetrahydrofolate reductase (MTHFR)

polymorphism and elevated homocysteine levels contribute to the risk of cortical cataract, separately and together, according to a study published online March 17 in *JAMA Ophthalmology*.

Ava Grace Tan, M.P.H., from the Westmead Institute for Medical Research in Australia, and colleagues examined the correlations of MTHFR polymorphisms and serum homocysteine levels with incident [cortical cataract](#). Data were included for 3,654 residents of the Blue Mountains region aged 49 years and older, enrolled in 1992 to 1994. Participants were surveyed in 1997 to 1999 (2,334 participants) and 2002 to 2004 (1,952 [participants](#)); homocysteine levels were assessed in 1997 to 1999 and the five-year incidence of cataract was estimated. Two MTHFR polymorphisms were assessed.

The researchers observed independent correlations for C677T polymorphisms (CT/TT versus CC) and elevated homocysteine levels ( $>15 \mu\text{mol/L}$ ) with increased risk of cortical cataract (odds ratios, 1.50 and 2.24, respectively). Homocysteine levels partially mediated the genetic effect on cortical cataract. The risk of cortical cataract was increased with combined CT/TT genotypes and elevated homocysteine levels (odds ratio, 3.74). For both exposures, the synergy index was 1.34.

"If these findings are confirmed, [homocysteine levels](#) may be a therapeutic target to reduce risk of cortical cataract in persons carrying genetic risk," the authors write.

One author was employed by Eisai.

**More information:** [Abstract](#)  
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Citation: MTHFR polymorphism, higher homocysteine up cataract risk (2016, March 21)  
retrieved 9 April 2024 from  
<https://medicalxpress.com/news/2016-03-mthfr-polymorphism-higher-homocysteine-cataract.html>

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