

Long-term supplementation with alpha-tocopherol and beta-carotene and age-related cataract.

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PURPOSE: To study if long-term supplementation with alpha-tocopherol or beta-carotene is associated with cataract prevalence and severity. **METHODS:** An end-of-trial random sample of 1828 participants from the randomized, double-blind, placebo-controlled clinical trial the alpha-tocopherol, beta-carotene cancer prevention study. The alpha-tocopherol, beta-carotene cancer prevention study was originally designed to examine whether supplementation with alpha-tocopherol or beta-carotene would reduce the incidence of lung cancer in male smokers. The participants for this study lived in Helsinki City or Uusimaa province and were at entry to the alpha-tocopherol, beta-carotene cancer prevention study 50 to 69 years old and smoked at least 5 cigarettes per day. They received alpha-tocopherol 50 mg/day, beta-carotene 20 mg/day, a combination of the two, or placebo supplements for 5 to 8 years (median 6.6 years). Outcome measures were: cortical, nuclear, and posterior subcapsular cataract, differentiated and quantified with lens opacity classification system (LOCS II). Lens opacity meter provided a continuous measure of cataract density. **RESULTS:** Supplementation with alpha-tocopherol or beta-carotene was not associated with the end-of-trial prevalence of nuclear (odds ratio 1.1 and 1.2, respectively), cortical (odds ratio 1.0 and 1.3, respectively), or posterior subcapsular cataract (odds ratio 1.1 and 1.0, respectively) when adjusted for possible confounders in logistic model. Neither did the median lens opacity meter values differ between the supplementation groups, indicating no effect of alpha-tocopherol or beta-carotene on cataract severity. **CONCLUSION:** Supplementation with alpha-tocopherol or beta-carotene for 5 to 8 years does not influence the cataract prevalence among middle-aged, smoking men.

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- Clinical Trial
- Randomized Controlled Trial

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