

Antioxidant vitamin and mineral supplements may be beneficial in age-related macular degeneration

Clinical Question	How effective are antioxidant vitamin and mineral supplements (AVMS) on the progression of age-related macular degeneration (AMD)?
Bottom Line	Taking antioxidant vitamins plus zinc probably slowed down the progression to late AMD and vision loss (moderate-certainty evidence). This might result in a small improvement in quality of life (low-certainty evidence). Taking lutein alone (or combined with zeaxanthin) might have little or no effect on progression to late AMD and vision loss (low-certainty evidence). Taking vitamin E alone might have little or no effect on the progression to late AMD and vision loss (low-certainty evidence). Duration of supplementation and follow-up ranged from nine months to six years. Very low-certainty evidence was available on adverse effects because the included studies were underpowered and adverse effects inconsistently reported.
Caveat	These conclusions were largely drawn from one large trial, conducted in a relatively well-nourished American population. The generalisability of these findings to other populations is not known. Although generally regarded as safe, vitamin supplements may have harmful effects.
Context	It has been proposed that antioxidants may prevent cellular damage in the retina by reacting with free radicals that are produced in the process of light absorption. Higher dietary levels of antioxidant vitamins and minerals may reduce the risk of progression of AMD.
Cochrane Systematic Review	Evans JR and Lawrenson JG. Antioxidant vitamin and mineral supplements for slowing the progression of age-related macular degeneration. Cochrane Reviews, 2017, Issue 9. Art. No.:

[CD000254.DOI: 10.1002/14651858. CD000254.pub4.](#)

This review contains 19 studies involving 11,162 participants.

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Eye disease

Antioxidant vitamin and mineral supplements, progression, age-related macular degeneration

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PEARLS summarise Cochrane reviews that are relevant to primary care. They contain the minimal information required for a clinician to either use an effective treatment or stop using an ineffective treatment. Where available they will contain numbers needed to treat and to harm.

PEARLS are created to assist with the dissemination of Cochrane reviews.

PEARLS are developed for trained health professionals in primary care. They are educational only and not meant to advise on specific clinical treatment.

We have started with the new reviews and will work our way back through the library.

PEARLS are developed by the Department of General Practice, University of Auckland, the Co-convenors of the Cochrane Primary Care Field New Zealand Branch of the Australasian Cochrane Centre and funded by the New Zealand Ministry of Health. Brian McAvoy is an Honorary/Adjunct Professor of General Practice at the Universities of Auckland, Melbourne, Monash and Queensland.