ODS Update: Do Multivitamins Affect Mortality?

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Recent Developments in Dietary Supplement Science

Multivitamins and Mortality

Almost one-third of adults in the United States take a multivitamin/mineral (MVM) supplement, often with the goal of maintaining or improving their overall health, supplementing their nutrient intake, or because they hope to prevent health problems.

MVMs do not have a standard or regulatory definition as far as the nutrients or doses they contain. Therefore, MVM products have widely varying compositions, but most contain all or most of the vitamins and minerals that are essential to human health. Some of these vitamins and minerals are recommended for certain people during certain times of life. For example, getting folic acid before and during early pregnancy reduces the risk of neural tube defects; other nutrients, including iodine and iron, are also important for a healthy pregnancy. Vitamin B12 is recommended for people over 50 and for those who follow vegan diets, and the Age-Related Eye Disease Study (AREDS) supplements can slow the progression of age-related macular degeneration. Research has also shown that MVMs might help maintain or enhance cognitive function in older adults.

But do MVMs affect mortality? This question was examined in a June 2024 paper published in JAMA Network Open by Loftfield and colleagues from the NIH National Cancer Institute. This cohort study, which was supported in part by an ODS Research Scholars award, included 390,124 healthy U.S. adults from three different cohorts who were followed for up to 27 years. The cohorts included the National Institutes of Health–AARP Diet and Health Study cohort; the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial cohort; and the Agricultural Health Study cohort. The median age of participants at the start of the study was 61.5 years, and by the end of the follow-up period, 164,762 had died. The researchers examined if MVM use affected mortality risk after adjusting for multiple factors, such as age, sex, physical activity, cigarette smoking, and alcohol use. Analyses showed that daily MVM use was not associated with a lower risk of all-cause mortality. The researchers also found that MVM use did not affect risk of death from heart disease, cancer, or cerebrovascular diseases.

The findings from this study suggest that MVM use does not affect mortality risk. However, it is important to keep in mind that these findings do not mean MVMs have no benefits. MVMs can help people meet recommended intakes if they do not get enough vitamins and minerals from their diet, and as discussed above, some nutrients are recommended for certain groups of people.

For more information, see our fact sheet on Multivitamin/mineral Supplements.
Other News from ODS

We welcome your feedback on our recently released Draft ODS Strategic Plan for 2025–2029. Visit our website to review the draft and learn how to submit comments. All comments are due by Friday, August 30, 2024, at 11:59 p.m. Eastern Time.

ODS is collaborating with other NIH Institutes, Centers, and Offices (ICOs) to support the following workshops:

- **Impact of Diet on Mucosal Immunity and Immune-mediated Digestive Diseases:** Registration is now open for this two-day hybrid workshop, August 21–22, 2024.
- **ODS Science of Resilience Workshop:** Save the date for this workshop scheduled for September 24–25, 2024. More information coming soon.

**ODS Co-Funding Opportunities**

ODS provides funding support to the NIH ICOs through its co-funding program. Co-funding allows ODS to share the costs of NIH extramural dietary supplement-related research project grants, training and career development grants, and scientific conferences with primary ICOs. See the list of active ODS co-funding opportunities.

**ODS Update: Recent Developments in Dietary Supplement Science** is a monthly newsletter produced by ODS to raise awareness of significant advances in the scientific field of dietary supplements. Current and past issues are posted on the ODS website.

How are we doing? If you have questions or comments about this publication, please let us know. Your feedback is always welcome—write to us at ODS@nih.gov.

**About ODS**

The Office of Dietary Supplements (ODS) is part of the National Institutes of Health (NIH), the nation’s medical research agency—supporting scientific studies that turn discovery into health.

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