

OSU experts: JAMA study about antioxidant vitamin risks flawed

by Bend_Weekly_News_Sources

CORVALLIS, Ore. — “A study published Tuesday on possible health risks of antioxidant supplements is based on flawed methodology and ignores the broad totality of evidence that comes to largely opposite conclusions, experts said today from the Linus Pauling Institute at Oregon State University.

“This is a flawed analysis of flawed data,” OSU experts said of the JAMA research. The research, which was published in this week’s edition of the Journal of the American Medical Association, concluded that antioxidant supplements such as vitamins A and E may “significantly increase mortality,” and that there was no evidence for any positive effect of vitamin C in the reduction of mortality rates.

However, Balz Frei, professor and director of one of the world’s leading institutes that studies the possible health value of vitamins, phytochemicals and micronutrients, said that the new study’s focus on a selected group of clinical trials disregards the results of other more positive trials, as well as huge amounts of laboratory, animal, and human observational and experimental data.

“This is a flawed analysis of flawed data, and it does little to help us understand the real health effects of antioxidants, whether beneficial or otherwise,” Frei said. “Instead of causing harm, the totality of the evidence indicates that antioxidants from foods or supplements have many health benefits, including reduced risk for cardiovascular disease, some types of cancer, eye disease and neurodegenerative disease,” he said. “In addition, they are a key to an enhanced immune system and resistance to infection.”

The “meta-analysis” published in JAMA, which is a statistical analysis of previously published data, looked at 815 antioxidant trials but included only 68 of them in its analysis, Frei said. And two of the studies excluded — which were published in the Journal of the National Cancer Institute and the prominent British medical journal Lancet — found substantial benefits and reduced mortality from intake of antioxidant supplements.

“If these two large studies had been included, none of the reported effects on increased mortality would have been significant, with the exception of the effects of beta carotene,” Frei said. “And the research showing a higher incidence of lung cancer in smokers who take supplements of beta carotene or vitamin A is old news, that’s been known for many years. Very high doses of vitamin A are known to have multiple adverse health effects.”

All the new study really demonstrates, Frei said, is a bias toward identifying studies or research that show harm caused by antioxidants, and selective removal of research that shows benefits.

The mean duration of the reviewed trials was 2.7 years, so the implied conclusion is that taking antioxidant supplements can kill people in less than three years, Frei said. It is absurd to think that vitamin supplements could have such an effect, he said, and no biological mechanism has been identified that would explain it. In addition, the causes of death were not considered or were not determined in many of the studies reviewed, and may include accidents or other causes that have nothing to do with diet or oxidative stress.

Most trials cited in the study, Frei said, tested multiple antioxidants and additional interventions in the treatment of disease, including a long list of other dietary supplements and pharmaceutical drugs. The underlying health problems or multiple types of medical, drug and surgical treatments could all interfere with or mask the effects that can be attributed directly to antioxidants, he said.

“These trials don’t tell us anything about the usefulness of antioxidants in the prevention of disease, or whether the supplements had the intended effect of lowering oxidative stress in the body,” Frei said. “It’s like doing a cholesterol-lowering trial without ever measuring serum cholesterol. How can you draw any conclusions from such a poorly-designed study?”

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