

Keep taking your multivitamins!



"Vitamins are a waste of time; they'll only give you expensive urine."

By that logic, we shouldn't bother to drink water. We eventually just pee it out.

But for years, skeptics have been publishing strident headlines, like these gems:

"Most of Your Vitamin Supplements Really Are Useless, Says Huge New Study"—*Business Insider* (2018)

"Multivitamins Are a Waste of Money, Doctors Say: Most supplements do not prevent chronic disease or death, their use is not justified and they should be avoided"—*Scientific American* (2013)

"Pricey Pee: Time to Regulate Vitamin and Dietary Supplements"—*Medscape* (2018)

Yet, according to industry surveys, multivitamins and minerals are the most popular supplements, with around 58% of the people preferring them.

"Nielsen's study shows that in 2018, 6 out of 10 American households bought vitamins, and most of these buyers are among senior couples, empty-nest couples, and high-earning suburban homes."

Multivitamins account for 65.6% of overall supplement sales, with a year over year average growth of 1.1%. Supplements are an 8.5-billion-dollar industry.

Are Americans deluded?

Amid the current pandemic crisis, government agencies ceaselessly remind us that supplements for immune protection are without substantiation. Specific disease-prevention or treatment claims fall within regulatory crosshairs.

But cracks are developing in the anti-supplement facade. This summer, in a little-noticed about-face, the conservative *Journal of the American Medical Association* (JAMA) reversed a long-standing policy of non-advocacy of nutritional supplements for prevention of chronic disease.

"According to Drs. Fletcher and Fairfield of Harvard University who wrote JAMA's new guidelines, 'most people do not consume an optimal amount of all vitamins by diet alone'. 'Sub-optimal intake of some vitamins, above levels causing classic vitamin deficiency, is a risk factor for chronic diseases and common in the general population, especially the elderly.' The authors emphasize that dietary improvement is a central component of an overall program of preventive care, while acknowledging that it is often difficult to get individual patients to change their dietary patterns."

While the JAMA piece didn't address the current elephant in the room—immunity—a new study places ordinary multivitamins front and center as a bulwark against infectious disease.

Entitled "The Effect of a Multivitamin and Mineral Supplement on Immune Function in Healthy Older Adults", it's a double-blind, randomized, placebo-controlled trial, the highest standard of scientific validity, as opposed to observational studies, which rank lower on the hierarchy of rigor and relevance.

Researchers at Oregon State University, Corvallis, gave a group of 42 healthy adults aged 55-75 either a multivitamin or a placebo pill. After 12 weeks, there was a "significant decrease in duration and severity of illness (about 3-fold for duration and about 3–6 fold for severity) compared with the placebo arm."

Days of self-reported sickness in the supplement group averaged fewer than three compared to more than six for the placebo group.

And this was not achieved with a mega-vitamin. It contained 700 micrograms of vitamin A; 400 international units of vitamin D; 45 milligrams of vitamin E; 6.6 milligrams of vitamin B6; 400 micrograms of folate; 9.6 micrograms of vitamin B12; 1,000 milligrams of vitamin C; 5 milligrams of iron; 0.9 milligrams of copper; 10 milligrams of zinc; and 110 micrograms of selenium. A supplement like this could cost mere pennies a day.

All are modest doses. If I'd had my druthers, I would've pushed for higher potencies, especially of vitamins A, C and D, and minerals zinc and selenium, all known to support immunity. In the interest of safety, and constrained by the conservatism of academic research, the study designers used a low-key multi.

But even the minimal supplementation made a difference. The authors believe this precedent sets the stage for further investigation: *"The findings from this study are sufficient to inform our design for future studies on supplements and immune function."*

Along these lines, a new review (scheduled for publication in January 2021) entitled "Immune-boosting role of vitamins D, C, E, zinc, selenium and omega-3 fatty acids: could they help against COVID-19?" hypothesizes:

"Key dietary components such as vitamins C, D, E, zinc, selenium and the omega 3 fatty acids have well-established immunomodulatory effects, with benefits in infectious disease. Some of these nutrients have also been shown to have a potential role in the management of COVID-19. In this paper, evidence surrounding the role of these dietary components in immunity as well as their specific effect in COVID-19 patients are discussed. In addition, how supplementation of these nutrients may be used as therapeutic modalities potentially to decrease the morbidity and mortality rates of patients with COVID-19 is discussed."

The authors point out that *"dietary insufficiency of vitamins and minerals has been observed in high-risk groups of COVID-19 patients, such as the elderly, increasing the morbidity and risk of mortality. It is well known that the elderly are more likely to be nutrient deficient and to have compromised immunity via immuno-senescence, significantly increasing their risk of poor outcomes from COVID-19, and making adequate nutrition doubly important."*

They conclude: *"Supplementation with higher doses of these nutrients during COVID-19 infection, have shown positive outcomes, and given their low risk profile are a sensible addition to patient care. However, further research needs to be undertaken to define the effective dosage of vitamins C, D, E, zinc and omega-3 fatty acids to protect individuals or alleviate symptoms against COVID-19."*

Studies are underway. As of now, there's no conclusive proof that supplements act as a shield against COVID-19. But, despite the detractors, there remains a pretty solid rationale for taking that multivitamin, especially as we face an uncertain fall.