

Expert advises against high doses of supplements

May 4 2012

(Medical Xpress) -- That vitamin D and calcium you're taking could be causing more harm than good, a new article in the *Journal of the National Cancer Institute* says.

The paper, co-authored by a professor at the University of Arizona's Mel and Enid Zuckerman College of Public Health, cites evidence that high doses of some supplements increase [cancer risk](#).

"You may not need to take supplements if you have a [healthy diet](#)," said article co-author Elizabeth Jacobs, a UA associate professor of epidemiology and a researcher at the Arizona Cancer Center. She cited an old phrase: "The dose makes the poison."

"If you are deficient in nutrients, taking a supplement is probably not going to cause any harm, but if you are already adequate in nutrients, then taking a supplement at a minimum has no benefit and in some cases has been shown to cause harm," Jacobs said.

Jacobs said the authors are not trying to say people who take supplements will get cancer. But she cautions about taking megadoses like 10,000 I.U.s of vitamin D per day, for example.

"A lot of literature has shown that often the people who take dietary supplements need them the least, so they already eat a good diet, they have a lot of nutrients in their diet, they exercise, they don't necessarily need extra nutrients," Jacobs said. "And those are the people who tend to

take supplements - they are very health conscious, and that's where the danger is because you are already getting enough of these vitamins or minerals in your diet, and then you are adding more."

The article, titled "Dietary Supplements and [Cancer Prevention: Balancing Potential Benefits Against Proven Harms](#)," appeared in the April 25 issue of the Journal of the [National Cancer Institute](#). Its lead author is María Elena Martínez of the University of California-San Diego, who is a former UA College of Public Health epidemiology professor.

"Undoubtedly, use is driven by a common belief that supplements can improve health and protect against disease, and that at worst, they are harmless," the scientists write. "However, the assumption that any dietary supplement is safe under all circumstances and in all quantities is no longer empirically reasonable."

In an email, Martínez stressed that the article is not a study but rather an invited commentary that she hopes will "continue to increase awareness among the scientific community, policymakers and relevant government agencies about the scientific evidence on the topic, especially as it relates to harm related to these products."

Nutritional supplements are an estimated \$30 billion-per-year industry.

"If you have too much of anything, that is not a good thing," said Cara Welch, vice president of scientific and regulatory affairs for the Washington, D.C.-based Natural Products Association, a nonprofit group representing natural-products retailers and suppliers. "The article was looking at very high doses in particular populations. It is against the law to market your supplement to treat or prevent cancer - at that point it turns into a drug. There's no way around it. You can't imply you prevent cancer."

Both Martinez and Jacobs say there are certainly people who need supplements, such as women of childbearing age who are considering getting pregnant, people who have been diagnosed with a specific nutrient deficiency like anemia and people with food allergies or intolerances, like lactose intolerance.

Folic acid is recommended for women considering pregnancy, but it is an example of a supplement that could be harmful for people who don't need it, Jacobs said.

"When you are older, folic acid is shaking out to be one of the more worrisome supplements," Jacobs said. "It's not natural. It's completely synthetic folic acid, and so your body is getting this new compound and we're just not as efficient at metabolizing folic acid as folate. So that is some cause for concern."

Jacobs said her personal hope is that the article will inspire better regulation and oversight of the supplement industry.

For most claims made in the labeling of [dietary supplements](#), the law does not require the manufacturer or seller to prove to the government's "satisfaction" that the claim is accurate or truthful before it appears on the product, Food and Drug Administration literature says.

Welch said her organization has a research and education arm that works with companies to ensure "truth in advertising."

And the industry is not regulated in the same way as pharmaceuticals for a reason, she said.

"We're not regulated as drugs because we're not drugs," she said.

Welch said a majority of Americans take supplements like multivitamins

and Omega-3 to maintain health. "Unfortunately, the standard U.S. diet doesn't give us all the nutrients we need," she said.

None of the article's five scientist authors takes any [supplements](#), not even the much-heralded [vitamin D](#), Jacobs said.

"Eat a variety of food, exercise, don't smoke - that is superior to taking a supplement," Jacobs said. "You aren't supposed to get the recommended dietary allowance (of nutrients) every day. It rarely happens. You are supposed to just average over time. You just do the best you can. But in the U.S. our problem isn't really under-nutrition, it's over-nutrition."

"You aren't supposed to get the recommended dietary allowance (of [nutrients](#)) every day. It rarely happens. You are supposed to just average over time. You just do the best you can. But in the U.S., our problem isn't really under-nutrition, it's over-nutrition."

Read more: [azstarnet.com/news/science/hea ... 8.html#ixzz1tsvDO4ej](http://azstarnet.com/news/science/hea...8.html#ixzz1tsvDO4ej)

Provided by University of Arizona

Citation: Expert advises against high doses of supplements (2012, May 4) retrieved 24 April 2024 from <https://medicalxpress.com/news/2012-05-expert-high-doses-supplements.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--