

# What doctors wish patients knew about vitamins and supplements

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While vitamins and nutritional or dietary supplements can be beneficial to your health, they can also involve health risks. Notably, the Food and Drug Administration (FDA) does not have the authority to review dietary supplement products for safety and effectiveness before they are marketed. And with more than 90,000 different supplements on the market, it can be confusing to understand what is safe and what is not.

Two AMA members took time to discuss what doctors wish patients knew about vitamins and nutritional supplements. They are:

- Pieter Cohen, MD, an internist at Cambridge Health Alliance and associate professor of medicine at Harvard Medical School.
- Fatima Cody Stanford, MD, MPH, MPA, an obesity medicine physician-scientist at Massachusetts General Hospital and Harvard Medical School.

## The pandemic exacerbated the issue

“There’s been a bunch of changes, obviously, to all of our lives. And some of those have had dramatic effects on sales of supplements and the use of supplements,” Dr. Cohen said during an episode of the “AMA Moving Medicine” video series about dietary supplements and regulations.

“One is that during the earlier months of the pandemic, during the lockdown, it was hard to access care,” he said, noting that “the approach to self-medicating—especially, one, where you could purchase something right off of Amazon, have it delivered to your house—became extremely attractive, even more so than before.”

While supplements are not permitted to be sold as if they prevent or treat disease, with a tweak of the language these companies can easily make claims like “immune booster” or “maintain a healthy immune system.” Those claims are 100% legal and can imply to consumers that the supplement can protect them from COVID-19, but that is not the case, Dr. Cohen explained.

Learn more from this *JAMA Network Open* commentary by Dr. Cohen, “The FDA and Adulterated Supplements—Dereliction of Duty.”

## Vitamins and supplements are different

“With regards to vitamins, most of us are able to get our required nutrients via our diet,” said Dr. Stanford. “If we have a well-balanced diet consisting of lean proteins, whole grains, fruits and vegetables, then we should find that we don’t necessarily need vitamins or have supplements on board.”

“Then for supplements, that’s a whole different category where people begin to delve into a lot of things that they think they need because of some new story that came out,” she added.

## Supplements are regulated as food

“The FDA is responsible for regulating dietary supplements,” said Dr. Cohen, noting that while “we might think of them—because they’re health products—as being a subcategory of medication ... the FDA regulates them as a subcategory of food.

“This has huge consequences for the whole category of dietary supplements—from vitamins, minerals, probiotics and all sorts of new ingredients,” he added. “What it means is that the manufacturer can introduce anything into the market that they believe is safe.”

“The FDA’s job is to identify the products that are causing harm after they’ve been on the market and remove them from store shelves,” Dr. Cohen explained.

## Certain conditions require supplements

“There are certain medical conditions and disorders where supplementation is required,” Dr. Stanford explained. “For example, in any patient that’s undergone metabolic and bariatric surgery, there’s a list of lifelong vitamins and supplements which we will recommend because we’ve altered the absorption

of vitamins and minerals in their gut.”

“It’s not just metabolic and bariatric surgery,” she said. “If you’ve had alterations in any of those portions of the gut from the esophagus down to the intestines, then obviously supplementation may need to happen to take care of a deficiency that someone might have.”

## There’s a rise in new ingredients

“The problem that we’ve had recently, in recent years especially, is that there’s been an explosion of new ingredients,” said Dr. Cohen. “So, it’s not only that we’re worried about the ingredients that are legal and permitted in supplements or historically used in supplements for many years,” but that “there are many of these ingredients—these are individual compounds found in botanicals or other substances—that can pose health risks.”

“Nowadays we’re seeing so many new innovations or brand-new ingredients being introduced to supplements,” he said. “Again, because the FDA isn’t vetting these products before they show up on store shelves or on the internet, what happens is that they can pose unpredictable risks.”

Learn more from this *JAMA Internal Medicine* research letter co-written by Dr. Cohen, “Presence of Piracetam in Cognitive Enhancement Dietary Supplements.”

## “Natural” doesn’t mean good for you

“If you look at the supplement industry, it’s a multibillion-dollar industry where people are making a ton of money off of a lot of things that have limited research and data,” said Dr. Stanford. “I’m all for using whatever works—whether it’s natural or not—but unfortunately, the data is usually very scarce for most supplements, including those that are natural.”

“People want to put an equals sign with natural because it came from the earth, but so does cocaine and heroin,” she said, adding that “there’s a lot of stuff that comes from here, so I try to let people know that natural doesn’t equal good and there’s no regulation on that.”

That is why “I would highly encourage people to talk with their doctors about supplements,” because “use of improper supplements can lead to several issues,” Dr. Stanford emphasized.

## Social media can stretch the truth

“Another big problem nowadays with the internet and with social media is that even the very lax rules around promoting a supplement are being really pushed to the limit,” said Dr. Cohen. For example, “a supplement is not supposed to be able to advertise as if it will help treat an illness or a disease.

“Unfortunately, because of the way social media is, it's very easy to link testimonials or little posts or tweets with things that will suggest to consumers—and also microtarget consumers—who have diabetes ... that this supplement might be useful to maintain healthy sugar levels,” he added.

“Basically, the social media environment really permits the companies and manufacturers and others to promote these products as if they're treatments for disease. And that is particularly an insidious problem for patients.”

## **Be transparent with your doctor**

“There's a lot of negative things that we've seen in terms of negative reactions that patients have had to supplements,” said Dr. Stanford. “It's not that I'm saying we never use a supplement, but just be very transparent with your primary care physician about them.”

## **There are direct, immediate effects**

“It's really important to just keep in mind that most of our patients are taking supplements,” said Dr. Cohen. “Whether or not they have told us about it or not, more than 50% of the U.S. adults are taking supplements.”

“One perception that I had, because I also didn't learn about supplements when I was in medical school, was that these must be expensive placebos,” he said. And “that if a patient's taking it, fine, I don't need to worry about it because it's not going to affect their health, it's not going to affect their medications.

“What we've come to realize is that because the supplements are so often formulated much closer to drugs, that it's incredibly important for us to pay attention to what our patients are taking and to recognize that they might be causing direct, immediate effects,” Dr. Cohen added.

Learn more from the *JAMA Internal Medicine* patient page, “Vitamins and Nutritional Supplements: What Do I Need to Know?”

## **Tailor to your own body**

“The key thing with all of the vitamins and supplements is you have to tailor these things to your own body,” said Dr. Stanford. For example, “if you're a woman who is planning to become pregnant, folic acid is extremely important.”

“We're often having to tailor particularly vitamins and even maybe supplements to accommodate where you are” in terms of life stages or chronic conditions, she explained. “You can't look at someone else and be like: Oh, that person who is like me is taking this or that, so that's what I need to do. It really needs to be tailored to fit what each person needs.”

Read about why tighter rules and better counseling are a must for the dietary supplements market.

For more detailed information on the topic, see a recent report from the AMA Council on Science and Public Health that updated and modernized AMA's dietary supplement policy.