

# A Closer Look at (Mostly Useless) Supplements



By Ruth Kava — February 28, 2018



Supplement Pills [1]

Anyone who regularly reads ACSH's writings knows that we look askance at the practice of many Americans to gulp down vitamin and/or mineral supplements (VMS), in the belief that even if one isn't deficient they will provide some sort of insurance against dietary deficiencies, or even better that they can protect against diseases. Recently a couple of Harvard doctors, Dr. JoAnn E. Manson and Dr. Shari S. Bassuk, attempted to educate physicians about what supplements are useful (or harmful) when. Their [editorial](#) [2] was published in *JAMA*. Although their message is directed towards other clinicians, it's worth a look for all of us.

First, they point out that most randomized trials of VMS simply do not provide any evidence that they protect against chronic diseases such as heart disease, diabetes or against cancer in generally healthy people who are not experiencing nutritional deficiencies. And second, they note that supplementation in excess of the RDAs (e.g. of folic acid or beta-carotene) can in fact have harmful consequences.

Further, they state



*Micronutrients in food are typically better absorbed by the body and are associated with fewer potential adverse effects. A healthful diet provides an array of nutritionally important substances in biologically optimal ratios as opposed to isolated compounds in highly concentrated form. Indeed, research shows that positive health outcomes are more strongly related to dietary patterns and specific food types than to individual micronutrient or nutrient intakes*

They're not inveighing against all supplementation. Instead they point out the situations in which additional nutrients provide a benefit. These include:

- folic acid and prenatal vitamins for pregnant women
- vitamin D until weaning and iron from 4-6 months of age for breastfed babies
- vitamin B<sub>12</sub>, vitamin D and calcium might be of benefit for middle-aged and older adults
- vitamins A,E,D,and K, B vitamins, iron, zinc, copper, magnesium for patients undergoing some types of bariatric surgery
- vitamin B<sub>12</sub> for patients with pernicious anemia
- iron, B vitamins, vitamin D, zinc, magnesium for those with inflammatory bowel disease or celiac disease
- vitamin D, calcium, magnesium for bone health issues such as osteoporosis
- vitamin B<sub>12</sub>, calcium, magnesium people using proton pump inhibitors or long-term
- vitamin B<sub>12</sub> for those using metformin long-term
- VMS, vitamin B<sub>12</sub> calcium, vitamin D, magnesium for people with restricted diets or poor eating habits

I repeat these indications to emphasize that we at ACSH are not against all supplementation — it can be life-saving *when needed*. However, most of us don't fit in those categories. Also, they reiterate what we've said before:

*...the US Food and Drug Administration is not authorized to review dietary supplements for safety and efficacy prior to marketing. Although supplement makers are required to adhere to the agency's Good Manufacturing Practice regulations, compliance monitoring is less than optimal.*

Yes, because of the 1994 Dietary Supplement Health and Education Act (DSHEA) supplement manufacturers can put anything on the market, and then the FDA must show how and why a supplement is dangerous.

In spite of repeated statements of these facts, the US supplement industry is now valued at around \$30 billion, and [52 percent](#) <sup>[3]</sup> of US adults recently reported that they take at least one supplement product. That's a lot of money being wasted. Hopefully, clinicians will pay attention to the words of wisdom in this editorial, and advise their patients accordingly.

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