# Five Questions to Ask When Considering Health Supplements

COMMENTS JANUARY 19, 2016 / by KATIE WORTH Tow Journalism Fellow, FRONTLINE/Columbia Journalism School Fellowships

Compared to most drugs sold at pharmacies, health supplements are loosely regulated by government agencies. Law prohibits manufacturers from selling products that are adulterated or mislabeled, and they cannot claim to cure things they don't. But there is little oversight or enforcement to ensure they comply. And unlike prescription drugs, which pass through a strict premarket approval process, the Food and Drug Administration does not evaluate a supplement's contents or effectiveness before it hits the shelves. Even then, the agency has only a modest capacity to test the pills.

The result is a more than \$30 billion industry that is largely regulated by the honor system.

Given this framework, there is little to guarantee that any vitamin, mineral, probiotic, sports supplement, herbal treatment, or other dietary supplement is safe, effective, or even contains what's on its label. Last year, for example, an investigation by the New York Attorney General's office found that several popular store-brand supplements at four major retailers — GNC, Target, Walgreens and Walmart — contained contaminants not listed among the labeled ingredients. Just 21 percent of them actually had the DNA of the plant species they purported to be vending.

While there are no guarantees, there are steps consumers can take to improve the chances that their supplements contain what they claim to, in the labeled quantities, and that they may indeed have a health benefit. Here are five questions a consumer may want to ask when considering supplements.

### 1. Has the product triggered any health warnings or sanctions?

Searching for a product or its maker on the FDA's website will unearth any safety advisories or sanctions issued against them. The agency alsomaintains a list of all recent recalls and market withdrawals.

Because the supplement industry is constantly releasing new products, a product may be dangerous even if there are no advisories against it. A few minutes of online research may reveal key concerns about a supplement or its producer; the FDA has tips for searching the Web for information on supplements.

Researching individual ingredients can also be productive. For instance, Consumer Reports compiled a list of the "dirty dozen": Twelve ingredients linked to serious adverse health effects, but that remain on shelves. The Federal Trade Commission also has a list of substances that have raised safety concerns.

## 2. Has the product been tested by independent labs?

Gaps in regulation have led to lapses in quality, even among mainstream brands. For instance, the New York Attorney General's tests found that pills labeled as medicinal herbs sometimes contained little more than fillers like rice or houseplants. In some cases, supplements were filled with substances that could be harmful to those with allergies. Similar results were reached by researchers at the University of Guelph in Canada, who in 2013 DNA tested 44 herbal products from a dozen companies. They found that only two of the companies had products without any substitution, contamination or fillers in their products. A handful of private, independent nonprofits have stepped in to partially fill gaps in regulation, inspecting some dietary supplements and reporting the results. The United States Pharmacopeial Convention (USP) runs a voluntary program to inspect and certify the quality of a company's products and facilities. Those that pass can place the organization's yellow and black "USP Verified" seal on their product — less than 1 percent of all supplements on the market have this label. The international public health nonprofit NSF International runs a similarprogram aimed at sports supplements.

Two other organizations, ConsumerLab.com and LabDoor, randomly test dietary supplements and report their findings. Both groups provide general review information for free; full results are accessible to paid members. ConsumerLab has also aggregated a long list of health warnings and recalls for more than a decade.

## 3. Is the product too good to be true?

Supplement producers are prohibited from making unfounded claims of health benefits — which is why many avoid declarations like "cures disease" in favor of softer assertions like "supports immunity." Nonetheless, it is not uncommon to find pills that make overzealous claims. Such instances are red flags that a product may be fraudulent in other ways, according to the FDA.

So before taking a supplement, consider what is being offered. Is it being sold as a miracle cure? A magic pill? A wonder drug? The FDA says consumers should beware of products that claim to do it all, and to do so instantly. Experts warn that products that primarily offer evidence in the way of personal testimonials are worthy of skepticism, as are products that use suspect medical jargon, like these examples offered by the FTC: "molecule multiplicity," "glucose metabolism," "thermogenesis," or "insulin

receptor sites." And just because something is labeled "natural" is no guarantee that it is safe to consume.

There are millions to be made through medical fraud, so consumers are asked to consider how they heard about a product. If the person recommending or prescribing it stands to gain financially, they may not have a consumer's best interest at heart.

Many manufacturers offer money-back guarantees, no questions asked. But getting that money back may prove difficult or impossible. "Marketers of fraudulent products rarely stay in the same place for long," writes the FDA's division of emergency preparedness. "Because customers won't be able to find them, the marketers can afford to be generous with their guarantees."

#### 4. Is there evidence that the supplement does what it promises?

Thousands of studies have been conducted on the effect of various substances on the human body. The National Institutes of Health has summarized what is known about the most commonly consumed supplements — vitamins and minerals — in a series of fact sheets. These explain how each vitamin or mineral behaves in the body, and the scientific evidence behind its health impacts. The U.S. National Library of Medicine's MedlinePlus has similar information about other drugs, herbs and supplements. For a deeper dive into the science behind a specific supplement, explore the Library of Medicine's PubMed Dietary Supplement Subset. The database includes scientific literature on vitamin, mineral, phytochemical, ergogenic, botanical, traditional Chinese medicine, and herbal supplements in humans and animal models.

Resources are also available for certain groups: The Department of Defense offers information about the safety of specific supplements to service members. Older adults can find resources aimed at them created by the FDA, the Federal Trade Commission, National Institute on Aging, and NSF International.

#### 5. Do I really need supplements? If so, am I taking the right amount?

Health experts will say that your doctor is the best person to consult on whether vitamins or supplements are appropriate for you, and a pharmacist or registered dietitian may also have valuable input. People taking medications should exercise particular caution, since some supplements can interfere with their treatment.

As you research a supplement, think about dosage. Some otherwise safe vitamins and minerals can cause health problems if they are taken in excess. The Institute of Medicine's Food and Nutrition Board producesrecommended daily dietary allowances as well as tolerated upper intake levels.

Also worth considering is that a supplement may have considerably higher quantities of a vitamin or mineral than it says on the bottle. Because certain vitamins degrade over time, manufacturers often provide more than the labeled quantities, to ensure there is still the labeled amount at the expiration date. The federally funded Dietary Supplement Ingredient Database hosts a multivitamin/mineral calculator that estimates the true quantity of a vitamin or mineral in a pill based on its labeled quantity.