

Methodology Behind “15 Ingredients to Always Avoid”

Many people regard dietary supplements as a safe and “natural” component of a healthy lifestyle. But ingredients in numerous supplements pose significant health risks. A 2013 report from the Government Accountability Office showed that the Food and Drug Administration received 6,307 reports of health problems from supplements between 2008 and 2011, including more than 1,000 serious injuries or illnesses, hundreds of life-threatening conditions, and 92 deaths.

Despite those risks, manufacturers of supplements are not required to prove to the FDA that their products are safe to take before they reach the market. That puts a heavy onus on consumers to arm themselves with accurate information.

To find out which supplement ingredients pose serious risks, researchers at Consumer Reports reviewed medical studies, adverse-event case reports, government warnings, and other literature. We also assembled a six-person panel of physicians and dietary-supplement experts. They helped us to develop the criteria for our list of “15 Ingredients to Always Avoid.”

Our expert panel included:

- Pieter Cohen, M.D., FACP, assistant professor of medicine at Harvard Medical School and an internist with the Cambridge Health Alliance in Cambridge, Mass. Cohen is a noted expert on the safety and regulation of dietary supplements and the author of more than three dozen peer-reviewed and published studies on dietary supplements.
- Philip J. Gregory, Pharm.D., M.S., FACN, director of the Center for Drug Information & Evidence-Based Practice and associate professor of pharmacy practice at Creighton University in Omaha, Neb.; associate editor, *Journal of Evidence-Based Complementary and Alternative Medicine*; and editor-in-chief,

natural medicines, Therapeutic Research Center, Stockton, Calif.

- Arthur P. Grollman, M.D., distinguished professor of pharmacological sciences and Glick Professor of Experimental Medicine at Stony Brook University in New York. Grollman is a recognized expert on the clinical pharmacology of herbal medicines and has testified on that subject before the White House Commission on Alternative and Complementary Health Policy; the Senate Subcommittee on Commerce, Science, and Transportation (Sen. John McCain, chairman); and the Governor of New York’s Task Force on Life and Law. He has also published more than 200 papers in the fields of molecular biology and cancer research.
- Donald M. Marcus, M.D., professor of medicine and immunology emeritus at Baylor College of Medicine in Houston. Marcus has published numerous papers on the hazards of nonvitamin and nonmineral supplements, and has made presentations on this subject at medical schools and national professional meetings.
- Paul A. Offit, M.D., professor of pediatrics in the division of infectious diseases, director of the Vaccine Education Center at the Children’s Hospital of Philadelphia, and author of “Do You Believe in Magic? Vitamins, Supplements, and All Things Natural: A Look Behind the Curtain” (Harper, 2014).
- Marvin M. Lipman, M.D., FACP, FACE, is the chief medical adviser for Consumer Reports. Lipman has represented the public as a member of the Board of Trustees of the U.S. Pharmacopeia and has served on several FDA advisory panels. He has authored articles on the dangers of dietary supplements. He is professor emeritus of clinical medicine at New York Medical College in Valhalla, N.Y.

All of the ingredients listed in our article are contained in products we found available for sale in the U.S.

The severity of the risks cited often depends on such factors as pre-existing medical conditions, the quantity of the ingredient consumed, and the length of time that a person has been exposed to the substance. But all of the ingredients meet one or more of the following criteria:

- It has been associated with kidney or liver problems.
- It has been associated with cardiac arrest or heart attack.
- It has been linked to cases of organ failure.
- It has carcinogenic properties.
- It has been associated with a possible risk of death.
- It has been found to contain pharmaceutical drugs at prescription doses.
- The FDA has advised manufacturers to remove products containing it from the market.

Retailer Selection

We searched for products that contained these 15 ingredients at CVS, Costco, GNC, Target, Vitamin Shoppe, Vitamin World, Walgreens, Walmart, and Whole Foods. Consumer Reports’ market analysts selected those retailers based on the following criteria: They are national chains, they operate walk-in stores, and they are among the top dietary supplement sellers in the U.S.

Product Selection

To identify products that contained these 15 ingredients, we searched the ingredients lists on the labels of products available on each retailer’s website. For retailers that did not sell their products online, such as Whole Foods, we visited stores near our Yonkers office and examined product labels. In the case of stores such as Costco that carry a different selection of products online and in-store, we reviewed the ingredients lists of the products available online and also visited local stores to examine product labels.