

Dietary supplements linked with severe health events in children, young adults

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Consumption of dietary supplements sold for weight loss, muscle building, and energy was associated with increased risk for severe medical events in children and young adults compared to consumption of

vitamins, according to new research led by Harvard T.H. Chan School of Public Health. The study found that, compared with vitamins, these types of supplements were linked to nearly three times as many severe medical outcomes in young people.

"The FDA has issued countless warnings about supplements sold for weight loss, [muscle building](#) or sport performance, sexual function, and energy, and we know these products are widely marketed to and used by young people. So what are the consequences for their health? That's the question we wanted to answer," said lead author Flora Or, a researcher with Harvard Chan School's Strategic Training Initiative for the Prevention of Eating Disorders.

The study will be published online June 5, 2019 in the *Journal of Adolescent Health*.

The researchers looked at adverse event reports between January 2004 and April 2015 in the U.S. Food and Drug Administration Adverse Event Reporting System on the food and dietary supplements database. They analyzed the relative risk for severe medical events such as death, disability, and hospitalization in individuals aged 0 and 25 years that were linked with the use of dietary supplements sold for weight loss, muscle building, or energy compared to vitamins.

They found that there were 977 single-[supplement](#)-related adverse event reports for the target age group. Of those, approximately 40% involved severe medical outcomes, including death and hospitalization.

Supplements sold for weight loss, muscle building, and energy were associated with almost three times the risk for severe medical outcomes compared to vitamins. Supplements sold for sexual function and colon cleanse were associated with approximately two times the risk for severe medical outcomes compared to vitamins.

Senior author S. Bryn Austin, professor in the Department of Social and Behavioral Sciences, noted that reputable physicians do not recommend the use of the type of dietary supplements analyzed in this study. Many of these products have been found to be adulterated with prescription pharmaceuticals, banned substances, heavy metals, pesticides, and other dangerous chemicals. And other studies have linked [weight-loss](#) and muscle-building supplements with stroke, [testicular cancer](#), [liver damage](#), and even death.

"How can we continue to let the manufacturers of these products and the retailers who profit from them play Russian roulette with America's youth?" Austin said. "It is well past time for policymakers and retailers to take meaningful action to protect children and consumers of all ages."

More information: *Journal of Adolescent Health* (2019). [DOI: 10.1016/j.jadohealth.2019.03.005](#)

Provided by Harvard T.H. Chan School of Public Health

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