

# Review shows minimal, high-quality evidence dietary supplements lead to weight loss

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Although Americans spend billions on them, published research shows a lack of strong evidence that dietary supplements and alternative therapies help adults lose weight, according to a new study published in *Obesity*.

There are hundreds of [weight](#)-loss supplements like green tea extract, chitosan, guar gum and conjugated linoleic acid, and an estimated 34% of Americans who are trying to lose weight have used one.

For the study, researchers completed a comprehensive review of 315 existing clinical trials of weight loss supplements and therapies, and most of the studies showed the supplements did not produce weight loss among users.

"Our findings are important for clinicians, researchers, and industry alike as they suggest the need for rigorous evaluation of products for weight loss," said corresponding author John Batsis, MD, associate professor in the Division of Geriatric Medicine at the University of North Carolina (UNC) School of Medicine, and in the Department of Nutrition at the UNC Gillings School of Global Public Health. "Only then can we produce data that allows clinicians to provide input and advice with a higher degree of certainty to our patients."

The evaluation should also be collaborative as the [supplement](#) industry and academics work together to design high-quality clinical trials of weight loss supplements, Batsis added.

The paper's authors explain that patients often struggle to lose or maintain weight either because of a lack of efficacy of existing Federal Drug Administration (FDA)-approved therapies or a lack of access to healthcare professionals who provide treatments for obesity.

Even though the National Institutes of Health's Office of Dietary Supplements has advanced the science of dietary supplements by evaluating information, and stimulating and supporting research, members of TOS decided it was important to evaluate and perform a qualitative synthesis of non-FDA therapies to provide scientific evidence to guide its membership.

Researchers conducted a systematic literature review using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines to evaluate the efficacy of dietary supplements and [alternative therapies](#) for weight loss in participants aged 18 and older. Searches of Medline (Pubmed), Cochrane Library, Web of Science, CINAHL and Embase (Ovid) were performed.

Researchers focused on 315 peer-reviewed randomized-controlled trials and analyzed them for risk of bias. Results classified 52 studies as low risk of bias and sufficient to support efficacy. Of these, 16 studies demonstrated significant pre/post intergroup differences in weight compared with placebos. In these methodologically distinct studies, the [weight loss](#) ranged widely from 0.3 to 4.93 kg.

In a perspective written by members of TOS's Clinical Committee led by Srividya Kidambi, MD, MS, Division of Endocrinology and Molecular Medicine, Medical College of Wisconsin in Milwaukee who also co-authored the paper, members recommend to clinicians to consider the lack of evidence of non-FDA-approved [dietary supplements](#) and therapies and guide their patients toward tested weight-management approaches. "Public and private entities should provide adequate resources for obesity management. We call on [regulatory authorities](#) to critically examine the dietary supplement industry, including their role in promoting misleading claims and marketing products that have the potential to harm patients," the authors write in the paper.

**More information:** The paper, titled "A Systematic Review of Dietary Supplements and Alternative Therapies for Weight Loss", will be published in the July 2021 print issue:  
[onlinelibrary.wiley.com/doi/10.1002/oby.23110](https://onlinelibrary.wiley.com/doi/10.1002/oby.23110)

A perspective titled "Dietary Supplements and Alternative Therapies for Obesity: A Perspective from The Obesity Society's Clinical Committee"

will accompany the paper:

[onlinelibrary.wiley.com/doi/10.1002/oby.23189](https://onlinelibrary.wiley.com/doi/10.1002/oby.23189)

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