

Limited data on benefits of dietary supplements for weight loss

Clinical question For which dietary supplements is there evidence that they promote sustained weight loss?

Bottom line The evidence is weak that any of the commonly used alternative products are effective for reducing weight in moderately overweight individuals. None of the products has been studied for longer than three months.

Synopsis The authors of this review searched for double-blind randomised trials, systematic reviews, and meta-analyses of alternative medicine products used to promote weight loss. They also hand-searched medical journals and examined reference lists of included studies. They did not limit articles to any language, which is a benefit since many of these studies are published in languages other than English. They identified five systematic reviews and meta-analyses and 25 additional randomised trials not included in the reviews. Overall, the studies of the various products were of short duration — one to three months — whereas studies of at least six months to one year are needed to establish benefit. In short-term studies, here is what the authors found: an ayurvedic herbal preparation (ingredients not specified) caused approximately 8kg in weight

loss, which was significantly higher than placebo; chitosan did not have an effect over placebo; chromium picolinate was ineffective in a meta-analysis of 10 studies; ephedra (now removed from the US market) resulted in a 1kg weight loss over placebo; *Garcinia cambogia*, a source of hydroxycitric acid, produced mixed results across several studies; glucomannan produced an effect greater than placebo in a single study; the fibre products guar gum and psyllium are ineffective; hydroxy-methylbutyrate or pyruvate, used by body-builders, may have an effect on increasing lean body mass; yerba mate, a source of caffeine, has little proof of effectiveness; and, yohimbe has conflicting evidence when used with a low-calorie diet.

Level of evidence 1a (systematic review, with homogeneity, of randomised controlled trials).

Reference Pittler MH, Ernst E. Dietary supplements for body-weight reduction: a systematic review. *American Journal of Clinical Nutrition* 2004;79:529-36.

POEM (Patient Oriented Evidence that Matters) is a registered trade mark of InfoPOEMS © InfoPOEM Inc 1995-2004 InfoPOEM. www.infopoems.com