



Complementary medicines and weight management

This is the sixth of a series of articles looking at the available evidence for complementary medicine relating to the theme topic in *Australian Family Physician*.

The medical and social need for effective weight loss interventions has resulted in a plethora of products and services aimed at helping people to lose weight. Certainly one of the holy grails of medicine is to find a safe and effective weight loss remedy that bypasses the need for caloric restriction or exercise. Unfortunately the laws of thermodynamics suggest that matter (and that includes fat) cannot be created or destroyed, but can only be converted from one form to another. This means that the only way to reduce body weight is to expend more calories than consumed. This law however does not preclude a medicine from helping to achieve weight loss by limiting appetite or increasing metabolic rate and there are a number of complementary medicines that claim to achieve this. Many of these products are available over-the-counter and are backed by marketing campaigns that appeal to consumer desire for natural products.

Recent systematic reviews of dietary supplements for body weight reduction suggest there is little convincing evidence for any dietary supplements as aids in reducing body weight.¹⁻³ However, research into complementary medicine is still in its infancy and the majority of natural weight loss products currently available have not been subjected to randomised controlled trials. Furthermore when research is done, it is often performed on single ingredients and most commercial products contain a mixture of many different ingredients that could have synergistic effects.

When considering what advice general practitioners should give to patients about using complementary therapies for weight loss it has been suggested that when there is strong evidence for a product's quality, safety and efficacy, it may be reasonable to recommend its use and conversely, when there is strong evidence for a lack of quality, safety or efficacy, use should be discouraged. In cases where there is insufficient or contradictory evidence, GPs can be advised to caution and closely monitor patients.⁴ Based on these criteria and the state of current evidence, it has been suggested that

there are currently no complementary medicine products that can be actively recommended for weight loss and that the use of chitosan and guar gum should be discouraged because of proven lack of efficacy, while ephedra containing products (not available over-the-counter in Australia) should be discouraged because of safety concerns.⁵

While current evidence does not support the recommendation of complementary medicines for weight loss, there are a number of products that appear promising with positive randomised controlled trials existing for glucomannan (*Amorphophallus konjac*),⁶⁻⁸ pyruvate,⁹⁻¹² and brindleberry (*Garcinia cambogia/indica*).^{13,14} The evidence to date however, is based on relatively small, short term studies and cannot be seen as conclusive.

All complementary medicine products on the Australian market are required to be manufactured under the same code of Good Manufacturing Practice (GMP) as prescription medicines, which provides some assurance of product quality. There is no requirement however, for advertisers to have rigorous peer reviewed, clinical trials performed on products to support claims of weight loss. The fact that advertisers can appeal to consumers by referring to testimonial evidence while satisfying Therapeutic Goods Administration's advertising regulations by stating that weight loss products should be used in conjunction with exercise and a calorie controlled diet, adds little to the scientific credibility of products. The prospect of industry funded scientific research is also effectively countered by the ability to achieve market success without the need for rigorous clinical trial evidence.

Despite a relative lack of research support, the considerable interest in the use of complementary medicines for weight loss causes the evidence base to be continually changing. General practitioners therefore need to have access to up-to-date, reliable, evidenced based resources in order to help their patients make informed decisions. When questioning patients about complementary medicine use it is important to encourage patient disclosure and avoid being dismissive or derogatory. Thus, GPs may then attempt to divert patients' motivation and resources toward proven strategies that will usually include the thermodynamically sound principle of using exercise and caloric restriction.

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