



Weight loss supplements offer no safe magic bullets

If you had a penny for every weight-loss supplement ever sold, you would be rich beyond your wildest imagination. Weight-loss products are entering the marketplace at a rate that keeps growing along with Americans' girth.

Dietary supplements claiming to make weight loss effortless -- with little or no dieting or exercise -- are especially popular. More often than not, these supplements enter the marketplace with little or no scientific support. As claims of effectiveness grow louder, researchers start to listen, then conduct controlled studies to see if the claims are true.

Studies with experimental animals might provide some insight into the function of specific weight-loss supplements, but the bottom line depends on studies with humans. A single well-designed human study is never enough to draw a conclusion about the effectiveness or safety of any product. Scientists want to see a number of good studies provide similar results before concluding that something works. It would be wise of consumers to do the same.

Good science takes time, but

eventually enough evidence exists to draw conclusions with some confidence.

This month, researchers from the University of Exeter in the United Kingdom published a comprehensive review of well-designed studies on weight-loss supplements. The results, published in the American Journal of Clinical Nutrition, might deter certain wild claims.

Question: What products were evaluated?

Answer: They included chitosan, chromium picolinate, ephedra (ma-huang), Garcinia cambogia (source of hydroxycitric acid, or HCA), glucomannan, guar gum, hydroxymethylbutyrate (HMB), psyllium, pyruvate, yerba mate and yohimbe.

Q: Did any of these substances cause weight loss?

A: The authors concluded that there was "little convincing evidence" that any of these supplements are effective. The only exceptions were products with the herb ephedra or its active component ephedrine. Many study participants taking ephedra, however, experienced adverse effects. Some of the most common included dis-

rupted heart rhythm, upper gastrointestinal symptoms, nausea, dizziness, sweating, insomnia and tremors.

Due to these negative side effects, the authors felt that ephedra and ephedrine products should not be sold over the counter. Due to similar concerns, the U.S. Food and Drug Administration recently banned the use of any sources of ephedrine alkaloids in dietary supplements.

Some other products reviewed showed statistically significant effects on weight loss, but these effects were so small that they were considered clinically insignificant.

The researchers also expressed concern for negative side effects. For example, guar gum might cause drug interactions such as decreased absorption of oral contraceptives, and there are questions about chromium picolinate (but not chromium nicotinate) causing chromosome damage.

Consequently, the risk-to-benefit ratio of these products does not support their use.

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