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What type of weight-loss program is most successful?

In a meta-analysis that was published in the *Journal of the American Dietetic Association*,[3] researchers reviewed long-term studies that investigated eight types of weight-loss programs. This included advice alone, diet alone, exercise alone, diet and exercise, meal replacements, diets that were very low in calories (800 or less per day) and two weight-loss medications (orlistat and sibutramine).

The researchers found 80 studies (with a total of 26,455 subjects) that met their inclusion criteria. Among their findings was that, after six months, the loss of weight by subjects in all eight programs reached a plateau. The subjects who received advice alone or exercise alone experienced a minimal loss of weight. In fact, the least effective treatment was exercise alone, with a loss of 5.3 pounds at six months and a regain of 3.1 of those pounds at two years. Those who were on the low-calorie diets lost 39.4 pounds at six months, but gained back 27.1 of those pounds at three years.

According to this review, the top treatments were diet alone, diet and exercise, and meal replacements. Subjects who used these three treatments lost about 11.0 to 18.7 pounds during the first six months. In studies that lasted 48 months, the subjects maintained a loss of 6.6 to 13.2 pounds. FM

Will magnetic insoles help to ease heel pain?

The use of magnets has been promoted as a way of treating a variety of disorders, but is there any support in the scientific literature for their efficacy? A study conducted at the Foot Clinics of New York[1] evaluated the effectiveness of magnetic energy in relieving heel pain. In the study, 40 subjects who were suffering from heel pain were randomly assigned to two groups: One group wore a molded insole with a magnetic foil placed in the heel of their shoes, and the other group wore the same insole without a magnetic foil. A total of 34 subjects completed the study (19 who used a magnetic foil and 15 who didn't).

After four weeks, 11 of the 19 subjects (57.9 percent) who used a magnetic foil reported an improvement in foot function. However, nine of the 15 subjects (60 percent) who didn't use a magnetic insole also reported an improvement in foot function. In short, the use of a magnetic foil was no better than a placebo in reducing heel pain. FM

Does pangamic acid increase endurance?

The use of pangamic acid (a.k.a., calcium pangamate and vitamin B-15) dates back to at least the mid-1970s. It was said that Russian athletes used it to reduce fatigue and improve stamina. However, there is no legitimate scientific evidence to support those claims — or any others — about pangamic acid. In fact, much of the research is from the 1960s, and hails from the former Soviet Union. Besides being poorly conducted, most of those studies involved animals.

In one well-designed study,[2] 16 male track athletes ingested either six tablets of pangamic acid or a placebo for three weeks. There were no significant differences between pangamic acid and a placebo in maximal performance on a treadmill in terms of endurance or recovery heart rate.

Here's something that's interesting: If you look in any nutrition textbook, you'll discover that there's no Recommended Dietary Allowance for pangamic acid. That's because it hasn't been shown to be essential in the diet, and isn't associated with any deficiency diseases. Actually, there's little or no mention whatsoever of pangamic acid in textbooks. And, vitamin B-15 isn't even officially recognized as a vitamin. The Food and Drug Administration has ruled that it is illegal to sell pangamic acid as a dietary supplement in the United States. FM

REFERENCES

1. Caselli, M.A., N. Clark, S. Lazarus, Z. Velez and L. Venegas. Evaluation of magnetic foil and PPT insoles in the treatment of heel pain. *Journal of the American Podiatric Medical Association* 87:11-644, 1997.
2. Schneider, D., V. Helwig, K. Staniek, H. Nohl and E.F. Elstner. Studies on the chemical identity and biological functions of pangamic acid. *Arzneimittelforschung* 49:4, 335-43, April 1999.
3. Skender, M.L., G.K. Goodrick, D.J. Del Junco, R.S. Reeves, L. Darnell, A.M. Gotto and J.P. Foreyt. Comparison of two-year weight-loss trends in behavioral treatments of obesity: Diet, exercise and combination interventions. *Journal of the American Dietetic Association* 96:4, 342-346, April 1996.

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