

Do "fat burners" really work? ^[1]

Dear Alice,

Do "fat burners" really work? If so, why? If not, why not?

— Burning to know

Answer

Dear Burning to know,

As you probably know, if you walk into any pharmacy or supplement shop, you will see dozens of products promising to make excess body fat melt away. Although manufacturers are not permitted to make these claims on the bottle, they run alluring ads in magazines and on TV. So, how are you to know whether or not the ingredients are safe and effective?

Weight loss supplements may work in three ways: one is by helping the body to break down body fat. The second action of weight loss supplements is to suppress appetite, which is a complex process. The human body's instinct is to survive, and once appetite suppressants are stopped, people become hungry. The third way weight loss supplements may work is by inhibiting the body from absorbing fat during digestion. Fat blockers don't work if a person isn't eating fat in his or her diet. They also won't prevent weight gain if a person is overeating protein or carbohydrates. Often, weight loss supplements contain more than one substance to generate weight loss from more than one angle. The ingredients are available alone, or with other substances. The following is a partial listing of some of the weight loss supplements you may see:

Carnitine

Promoted as a fat burner, carnitine naturally occurs in the body, and people can obtain it through eating meat, fish, poultry, and some dairy foods. Carnitine helps transport fatty acids to the muscle. In theory, it makes sense that more of it would help people get more fatty acids into the muscles, burning additional fat. Unfortunately, it doesn't live up to expectations, because taking its supplemental form doesn't result in increased fat burning.

Chromium Picolinate

Although this mineral helps metabolize carbohydrates and fats, it has not lived up to claims of

increasing lean body mass and decreasing fat. As a matter of fact, the majority of the research done on this supplement shows it is not effective as a weight loss supplement. Some research showed damage to DNA with excess chromium picolinate that is exacerbated with vitamin C. Taking in more than the body requires can actually reduce the binding capacity of iron in the blood, potentially resulting in iron deficiency and decreased ability to carry oxygen in the blood. This could negatively impact one's ability to exercise and expend calories.

Ephedrine

This acts like a hormone the body makes — norepinephrine. The action of this substance is associated with increased fat release from adipose (or fat) tissue, increasing free fatty acids in the bloodstream. Also increased are heart rate, heart contractility, body heat production, and metabolic rate. Ephedrine may also be able to suppress hunger. It has been shown that ephedrine is even more effective when combined with caffeine — but so are the side effects, including tremors, dizziness, insomnia, heart arrhythmias, headaches, and increased blood pressure. Due to these risks, the U.S. Food and Drug Administration (FDA) banned the sale of dietary supplements containing ephedra in 2004.

When a supplement touts "proven in clinical trials," it's time to dig deeper. That "trial" may have been performed on animals, or with amounts of the supplement not available for sale. The FDA does not closely monitor supplements, so there's no guarantee you're getting the ingredients you're paying for, nor any guarantee you're not getting some additional ingredients not listed on the label.

Once again, there is really no safe short cut or quick fix to losing weight, no matter how slick the ads! To lose weight and burn fat, you need to burn more calories than you consume. And fat burners, despite the hype, do not work as advertised.

Alice!

Category:

[Nutrition & Physical Activity](#) [2]

[Optimal Nutrition](#) [3]

[Supplements & Ergogenic Aids](#) [4]

[Weight Gain & Loss](#) [5]

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[Trying to diet](#) [8]

[Weight loss with pyruvate or chitosan?](#) [9]

Resources

[Columbia Health Nutrition Services \(Morningside\)](#) [10]

[Student Health Service Nutrition Services \(CUIMC\)](#) [11]

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Footer menu

- ▼ Contact Alice!
 - Content Use
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Links

- [1] <https://goaskalice.columbia.edu/answered-questions/do-fat-burners-really-work>
- [2] <https://goaskalice.columbia.edu/category/nutrition-physical-activity>
- [3] <https://goaskalice.columbia.edu/category/optimal-nutrition>
- [4] <https://goaskalice.columbia.edu/category/supplements-ergogenic-aids>
- [5] <https://goaskalice.columbia.edu/category/weight-gain-loss>
- [6] <https://goaskalice.columbia.edu/answered-questions/ephedrine-ma-huang-%E2%80%94-uses-and-dangers>
- [7] <https://goaskalice.columbia.edu/answered-questions/what-eat>
- [8] <https://goaskalice.columbia.edu/answered-questions/trying-diet>
- [9] <https://goaskalice.columbia.edu/answered-questions/weight-loss-pyruvate-or-chitosan>
- [10] <https://goaskalice.columbia.edu/resource/columbia-health-nutrition-services-morningside>
- [11] <https://goaskalice.columbia.edu/resource/student-health-service-nutrition-services-cuimc>