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# FITNESS

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# AFQ & A

BY MATT BRZYCKI

## Can wearing certain shoes tone the hips and legs?

One of the latest products that supposedly tones and firms the muscles of the hips and legs is walking shoes. It's also claimed that the shoes can promote weight loss and improve posture.

The basic premise of the shoes is to provide instability through various designs—such as “rockerlike soles” and air pockets built into the soles—which make it more challenging for the wearer to maintain balance. Conceptually, this is similar to the difficulty that's encountered when trying to maintain balance on an unstable object such as a wobble board.

Promoters often point to a study that was done at the University of Delaware. In the study, five women walked for five minutes on a treadmill three different ways: wearing the toning shoes, wearing regular walking shoes and barefoot. It was found that the toning shoes produced significantly greater muscle activity in the gluteals, hamstrings and calves.

However, the study had many limitations: It was short duration (involving only 500 steps), had a small number of subjects and wasn't published in a peer-reviewed journal. Moreover, the study was funded by a manufacturer of the shoes.

Bottom line: Walk away from footwear that purports to tone the muscles.

## Do walnuts lower cholesterol?

Studies have shown a reduced risk of cardiovascular disease with an increased consumption of nuts. One of the risk factors for cardiovascular disease is elevated levels of cholesterol.

In a meta-analysis, researchers at Harvard University pooled data from 13 studies that involved a total of 365 subjects. The studies ranged in length from 4 to 24 weeks with walnuts, when consumed, comprising 5 to 24 percent of the total calories. With the exception of one study, either food records or food-frequency questionnaires were collected from the subjects.

The meta-analysis found that in comparison to a variety of control diets, walnut-enriched diets significantly decreased total and LDL (“bad”) cholesterol; HDL (“good”) cholesterol was unaffected. The walnut-enriched diets, also showed a greater decrease in triglycerides than the control diets but the difference wasn't statistically significant. Although walnuts have a high fat content, no evidence

## Do 100-calorie packages of food lead to less food intake?

In an effort to combat the epidemic of global obesity—or “globesity” as it has been called—food manufacturers have introduced single-portion products of which 100-calorie “snack packs” have become popular. Are these portion-controlled products effective in curbing the consumption of calories?

Researchers at the University of Colorado Denver randomly assigned 59 subjects to receive a snack of their choice as a standard-size package or a 100-calorie package for one week. After at least a one-week “washout” period to eliminate any possible effects or “carryover” from this exposure, the subjects received the other type of package for one week. The subjects were told to “consume as much and whenever they would like.”

The study found that the subjects consumed 186.9 fewer grams of snacks per week when they received the 100-calorie snack packs compared to when they received the standard-size packages. Interestingly, the subjects who were given the standard-size packages in the first week ate 260.4 fewer grams of snacks when they switched to the 100-calorie snack packs in the second week. The researchers felt that this was because the portion-controlled products increased their awareness of calories.

was found that their consumption produces an increase in body weight.

A downside of the meta-analysis is that it was partially funded by the California Walnut Commission (which, according to its website, “is involved in export market development activities, nutrition research, promotion and education on walnuts and their nutrition benefits”).

**MATT BRZYCKI** is the Assistant Director of Campus Recreation, Fitness at Princeton University. He has more than 25 years of experience at the collegiate level and has authored, co-authored and edited 17 books.

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