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AF Q & A

BY MATT BRZYCKI

Is Pilates effective for improving body composition and flexibility?

Pilates is based on the teachings of Joseph Pilates who originally referred to it as "Contrology." Early on, Pilates was a series of 34 exercises done on a mat without the use of any equipment. Pilates, himself, created pieces of apparatus to assist users with resistance training. Today's practitioners can choose training with or without devices and accessories.

Over the years, the interest in Pilates has grown considerably; estimates are that more than five million Americans do Pilates. Anecdotal reports claim that Pilates improves many components of fitness. What does the research say?

Surprisingly, there's a dearth of studies on Pilates. But in one recent study conducted at the University of Miami, nine participants took a one-hour mat Pilates class that met three times per week for eight weeks. The class was taught by a certified instructor and involved mainly basic and intermediate exercises. A control group did their usual unsupervised and self-prescribed fitness program (strength training and aerobic training) for the same frequency and duration.

The researchers found that in comparison to the control group, the Pilates group experienced significant improvements in almost all of the areas that were tested. This included body composition, flexibility (as measured in a sit-and-reach test and shoulder-reach test) and muscular endurance (of the abdominals and lower back). Those in the Pilates group also had a greater reduction in their waist and arm circumference.

Bottom line: Pilates is an enjoyable activity that can improve body composition, flexibility and muscular endurance without significant risks.

Do smaller bites of food lead to less food intake than bigger bites?

In one study, 22 subjects were randomly exposed to seven different test conditions in which they received chocolate custard through a tube. The bite size was either "free" or fixed to small (about five grams) or large (about 15 grams) amounts. In addition, the "oral processing time"—the time that a food stays in the mouth before being swallowed—was either "free" (when the bite size was free) or fixed to three or nine seconds.

There was at least one nontesting day between each of the seven test conditions. The researchers told the subjects to eat "until pleasantly satiated." The subjects consumed significantly more food when they took bigger bites and had the food in their mouths for a shorter time.

It appears, then, that an effective way to control the number of calories consumed is to take smaller bites. This tactic is even more effective when a longer period of time is used to process the food prior to swallowing. In other words, take small bites and eat slowly.

Is there such a thing as the Freshman 15?

For years, it has been widely believed that students gain roughly 15 pounds during their first year of college. But is there any evidence to support the existence of the so-called "Freshman 15"?

To investigate this notion, researchers at Florida State University conducted a review of the relevant literature. They found 17 studies that met their selection criteria. In 16 studies, freshmen gained anywhere from about 1.6 pounds to 6.8 pounds during their first year in college; in one study, there was no change in weight.

So while it appears as if students do, indeed, gain weight as college freshmen, the increase is far less than 15 pounds. And even if freshmen do gain some weight, it doesn't necessarily mean that all of it is fat. One study involved 137 female students at the University of Oklahoma. On average, the students gained 2.42 pounds during their freshman year, of which about 1.77 pounds were fat and 0.65 pound was lean body mass.

As a side note, one study showed that women who attended a community college gained an average of 0.022 pound per month; meanwhile, women who attended a university gained an average of 0.660 pound per month—that's literally 30 times more.

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