

Special Report: **New Products**

# fitness

## MANAGEMENT

ISSUES & SOLUTIONS FOR FITNESS FACILITIES

DECEMBER 2006

### WEB DESIGN

Using Technology to Create Effective Websites

### LOCKER ROOMS

How to Go the Extra Mile to Provide Member Comfort

### PILATES

The Keys to Opening a Successful Pilates Studio

## 2007 Product Debuts

Suppliers showcase their newest products to keep facilities on the cutting edge

### PLUS:

- Safe and Effective Weightstack Exercises
- Member Rules and Termination
- Purchasing Guide: Certifications

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## Is there a difference between excessive and compulsive exercise?

Exercise is excessive when the volume of training — in terms of the duration and frequency — goes well beyond what's necessary to improve health and fitness. Exercise is compulsive when the schedule of training is so rigid that it takes priority over all other activities and produces feelings of guilt and anxiety when it's not done. Although the two are somewhat related, one can be independent of the other. For instance, an individual could exercise excessively but not be compulsive about it, and vice versa.

However, one characteristic may be a better predictor of eating disorders than the other. In one study, 264 undergraduate students at Harvard University participated in a web-based survey. In those who were motivated by health and fitness, neither compulsive exercise nor excessive exercise was a predictor of disordered eating symptoms. In those who were motivated by their appearance, compulsive exercise was a predictor of disordered eating symptoms, but excessive exercise was not. As a result, researchers concluded that this “supports characterizing the unhealthy exercise that is symptomatic of bulimia nervosa as compulsive rather than excessive.”



## Does Pilates improve body composition?

Pilates is based on the teachings of Joseph Pilates, who originally referred to it as “Contrology.” Early on, it was a series of 34 exercises that were performed on a mat without any equipment.

Pilates has become exceedingly popular; it is estimated that more than five million Americans take Pilates classes. Three of the main claims are that Pilates improves flexibility, posture and muscle tone. But what does the research say?

Despite its popularity, there's a surprising lack of scientific research examining Pilates. In one of the few studies on Pilates, 47 subjects (45 men and two women, ages 35 to 48) participated in a one-hour class at a local fitness center once per week for six months. The classes were taught by a certified Pilates instructor. For various reasons, 15 of the 47 subjects (31.9 percent) dropped out of the program. The subjects who completed the program improved their flexibility (measured by fingertip-to-floor distance) but had no significant changes in their height (a surrogate measure of posture) or body composition.

Even so, Pilates is an enjoyable activity that has been shown to improve flexibility and presents no significant risks. There are also many psychological benefits.

## Does creatine improve athletic performance?

Creatine continues to receive a great deal of attention in the athletic and scientific communities. It is, perhaps, the most studied supplement. In a laboratory, studies have shown that creatine improves performance. But, for the most part, the improvement was in repeated maximal, short-term sprints on a stationary cycle. Outside a laboratory, studies have not shown that creatine improves performance. For example, two studies involving a total of 52 elite male and female swimmers found that creatine didn't improve performance in a 100-meter swim.

There haven't been any side-effects reported in studies using 20 to 30 grams of creatine per day for up to seven days. Nor have there been any side-effects reported in studies using smaller dosages of 2 to 3 grams of creatine per day for longer periods of up to seven weeks. But most studies don't include any formal way of assessing the side-effects. The fact is that the long-term effects of creatine are unknown. There are countless anecdotal reports of water retention, muscle cramping, dehydration/heat-related illness, muscle strains/dysfunction, gastrointestinal distress (such as an upset stomach, gastrointestinal pain, nausea and vomiting) and liver and kidney dysfunction.

Matt Brzycki is coordinator of recreational fitness and wellness programs at Princeton University, Princeton, N.J. He has more than 22 years of experience at the collegiate level and has authored, co-authored or edited 14 books.