

american

FITNESS

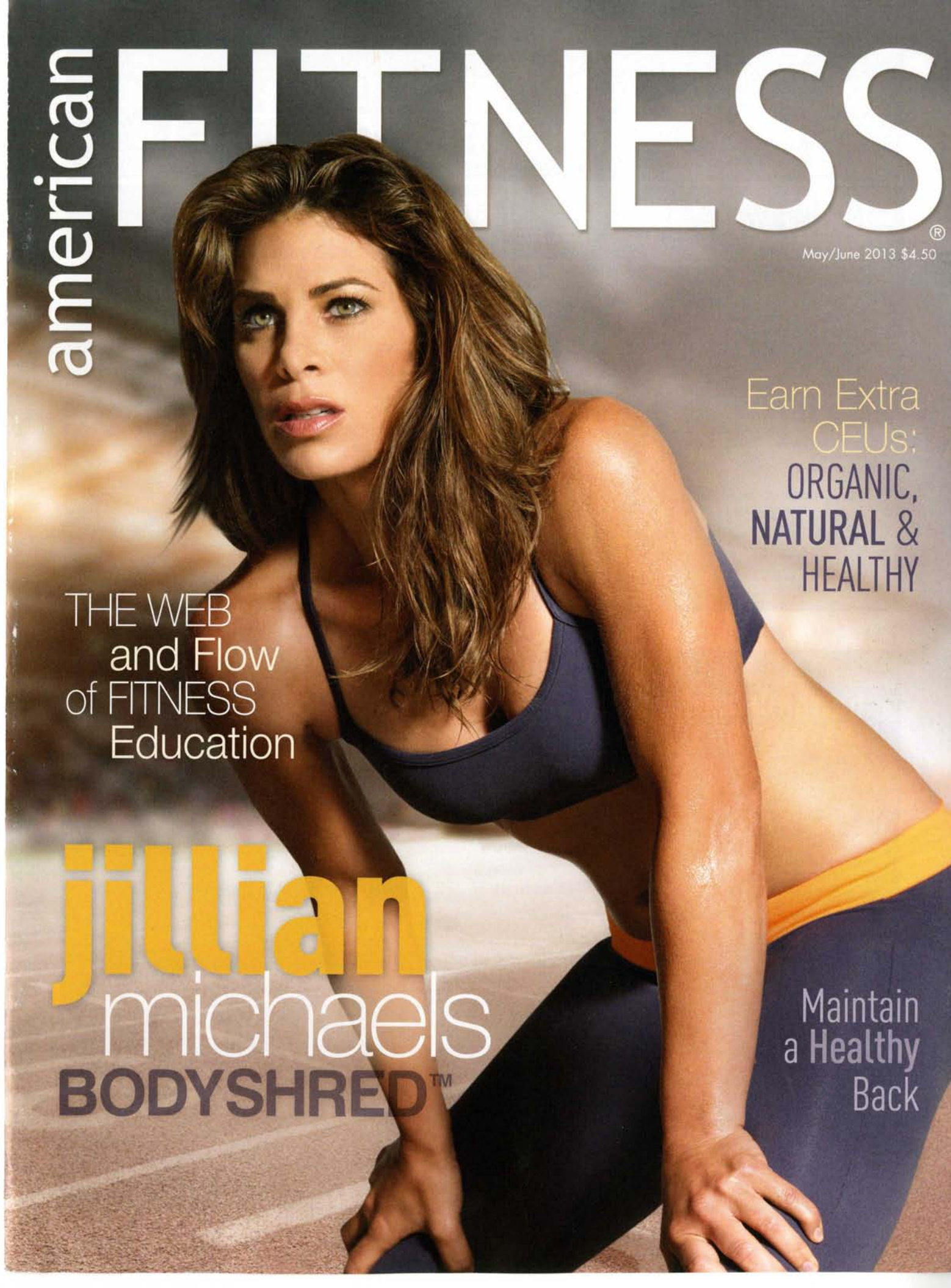
May/June 2013 \$4.50

Earn Extra
CEUs:
**ORGANIC,
NATURAL &
HEALTHY**

THE WEB
and Flow
of FITNESS
Education

jillian
michaels
BODYSHRED™

Maintain
a Healthy
Back



AFQ & A

BY MATT BRZYCKI

Should people who don't have any gluten disorder consume gluten-free products?

Gluten is a protein composite that's found in foods processed from wheat and related grains such as barley and rye. Perhaps the most well-known gluten-related disorder is celiac disease.

One of the fastest growing markets is gluten-free products with global sales expected to reach 4.3 billion dollars by 2015. It's estimated that 1.6 million Americans forgo gluten, most of whom don't have any type of gluten disorder; instead, these individuals do so because they believe that health benefits are associated with gluten-free products.

Actually, gluten may play an important role in the diet. For example, research has shown that an increased intake of gluten lowers triglycerides by as much as 19%.

A review article of gluten-free diets concluded, "There is no evidence to suggest that following a gluten-free diet has any significant benefits in the general population." It must be noted, however, that this review was partially funded by the Grain Foods Foundation and the lead author is the chairman of the Grain Foods Foundation Scientific Advisory Board.



What's the best way to treat exercise-induced muscle damage?

A normal consequence of strength training is muscle damage. When training in a reasonable manner, the damage is minor. But when training in an extreme manner, the damage can be extensive. Muscle damage can also occur when performing novel (unfamiliar) exercises/activities. The condition manifests itself by increased muscular soreness—especially 24 to 48 hours after exercising—and decreased muscular function.

In an effort to determine the most effective way to treat the negative effects of muscle damage, researchers conducted a meta-

analysis that consisted of 35 studies. Those studies investigated four different types of treatment: cryotherapy (mainly immersion in cold water), massage, stretching and low-intensity exercise. The researchers specifically looked at the impact that those treatments had on muscular soreness and muscular strength (used here as a proxy for muscular function).

The meta-analysis showed that the only effective treatment for the negative effects of muscle damage is massage. There was little evidence to support the use of cryotherapy and no evidence to support the use of stretching or low-intensity activity.

Does Kinesio® Taping improve muscular strength?

If you watch certain sports, you'll see many athletes wearing colorful strips of cotton adhesive tape. Known as Kinesio Tape or K-tape, it purports to treat a variety of physical injuries/ailments and enhance muscular function. Although Kinesio Taping has experienced recent popularity, it has actually been used since the 1970s. But does the tape live up to the hype?

Researchers in Italy randomly assigned 34 subjects to receive three different types of taping on three separate occasions: one with light to moderate tension ("facilitation taping"), one with light tension ("inhibition taping") and one with no tension ("sham taping"). The subjects were taped on the front part of the thigh on their dominant leg.

The study found no significant differences in maximum quadriceps strength between the three taping conditions. In other words, Kinesio Taping did nothing to enhance muscular function. This finding is consistent with a number of other studies.

Interestingly, the study also found that the subjects' perception of their performance wasn't influenced by the different types of taping. Some subjects, in fact, thought that they were stronger with the taping that was applied in a way that inhibited muscular strength.

MATT BRZYCKI is the Assistant Director of Campus Recreation, Fitness at Princeton University. He has more than 30 years of experience at the collegiate level and has authored, co-authored and edited 17 books.

REFERENCES:

- GAESSER, G.A. AND ANGADI, S.S. "GLUTEN-FREE DIET: IMPRUDENT DIETARY ADVICE FOR THE GENERAL POPULATION?" *JOURNAL OF THE ACADEMY OF NUTRITION AND DIETETICS*, 112, NO. 9 (2012): 1330-33.
- TORRES, R., ET AL. "EVIDENCE OF THE PHYSIOTHERAPEUTIC INTERVENTIONS USED CURRENTLY AFTER EXERCISE-INDUCED MUSCLE DAMAGE: SYSTEMATIC REVIEW AND META-ANALYSIS." *PHYSICAL THERAPY IN SPORT*, 13, NO. 2 (2012): 101-14.
- VERCELLI, S., ET AL. "IMMEDIATE EFFECTS OF KINESIOTAPING ON QUADRICEPS MUSCLE STRENGTH: A SINGLE-BLIND, PLACEBO-CONTROLLED CROSSOVER TRIAL." *CLINICAL JOURNAL OF SPORTS MEDICINE*, 22, NO. 4 (2012): 319-26.