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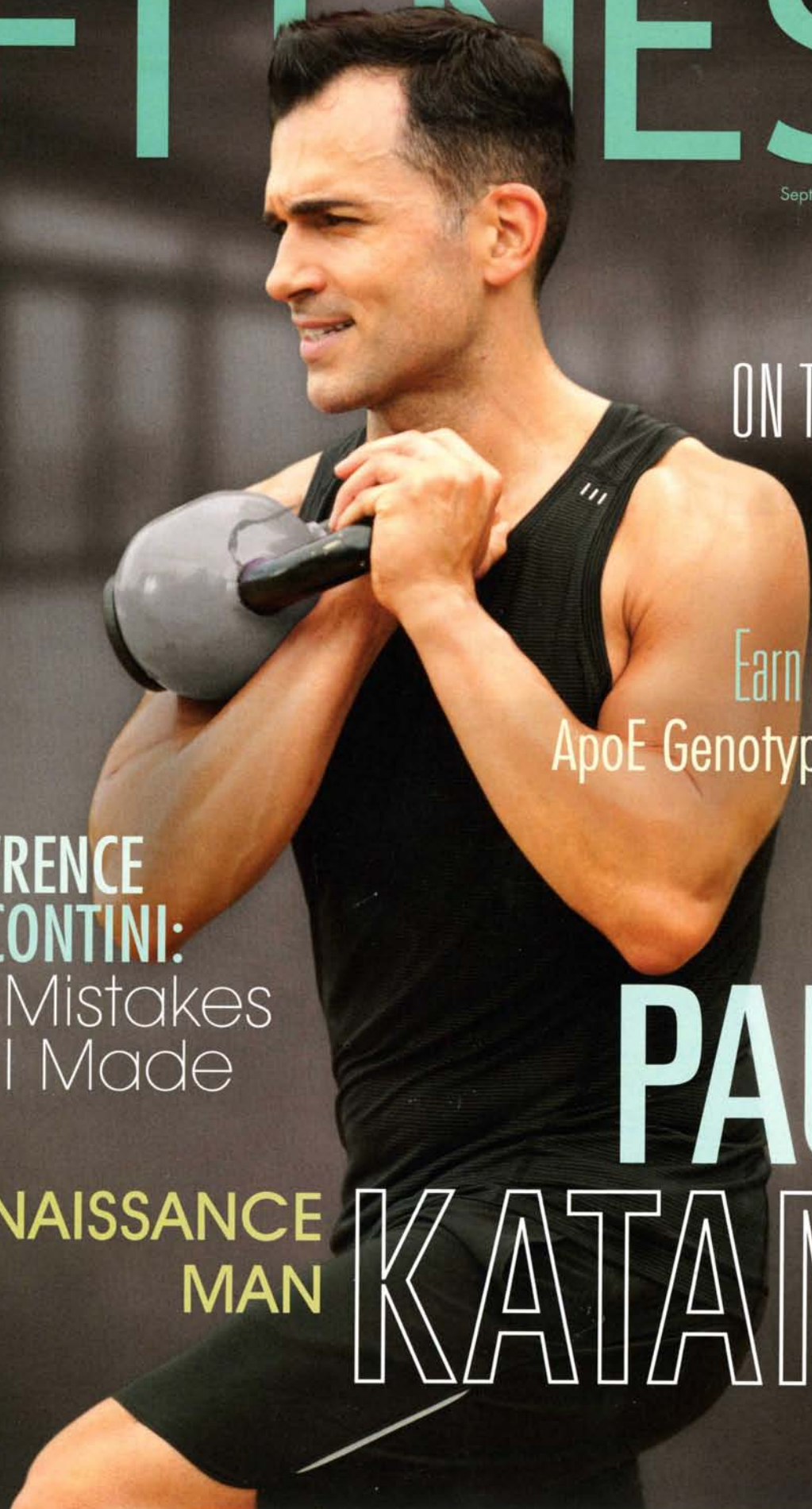
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AFQ & A

BY MATT BRZYCKI

Is the sugar in 100% fruit juice bad for you?

The U.S. Department of Agriculture recognizes five food groups: grain, vegetable, fruit, dairy and protein foods. Included in the fruit group are any fruit and any 100% fruit juice.

Fruit juice—not to be confused with fruit drink—has no added sugars; the sugar in fruit juice occurs naturally, just as it does in whole fruit.

Although it's generally better to consume whole fruit, fruit juice is convenient and is nutrient dense. Also note that 4 ounces of fruit juice is roughly the equivalent of one-half serving of whole fruit.

And there's no link between fruit juice and overweight/obesity as some have suggested. People gain weight when their caloric intake is greater than their caloric output. The real culprit is calories, not composition.

Be advised that the sugar in fruit juice is natural but it's still sugar. And that means drinking too much of it can lead to consuming more calories than desired.



How many calories are used in the recovery after a workout?

In one study, 10 subjects were assigned to spend two 24-hour sessions in a metabolic chamber on nonconsecutive days. On the first day, the subjects remained seated for the majority of the time without doing any type of exercise other than stretching for two minutes every hour from 12:30 p.m. to 6:30 p.m. The second day (48 hours later) followed the same schedule, except the subjects performed 45 minutes of intense activity on a stationary cycle.

The researchers compared the rest day to the exercise day in terms of the number of calories that were consumed and used. During the

45 minutes of cycling, subjects used about 519 calories above baseline levels. And during the 14.2 hours after exercise, subjects used about 190 calories—or about 13.38 calories per hour—above baseline.

These findings must be interpreted with caution, however. The subjects maintained a caloric balance on both days. Specifically, they consumed an additional 659 calories on the exercise day. Other studies have shown that an increased intake of calories contributes to an increased expenditure of calories on days in which exercise is performed. So the “afterburn” produced in this study may be somewhat greater than might otherwise be expected.

Are partial repetitions as good as full repetitions?

When strength training, many people do their repetitions through a partial range of motion (ROM).

To test this approach, 40 male subjects were randomly assigned into three groups: One group trained with a full ROM (0 to 130 degrees), another group trained with a partial ROM (50 to 100 degrees), and the third group (control) did no training. The subjects in the first two groups did two to four sets of elbow flexion—a biceps curl on a preacher bench—two days per week for 10 weeks.

The group that used a full ROM had greater improvements in muscular strength (25.7% compared with 16.0%) and muscle thickness (9.65% compared to 7.83%) than the group that used a partial ROM. Although the difference wasn't statistically significant with respect to muscle thickness, it was with respect to muscular strength.

Bottom line: Full repetitions are generally better than partial repetitions.

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