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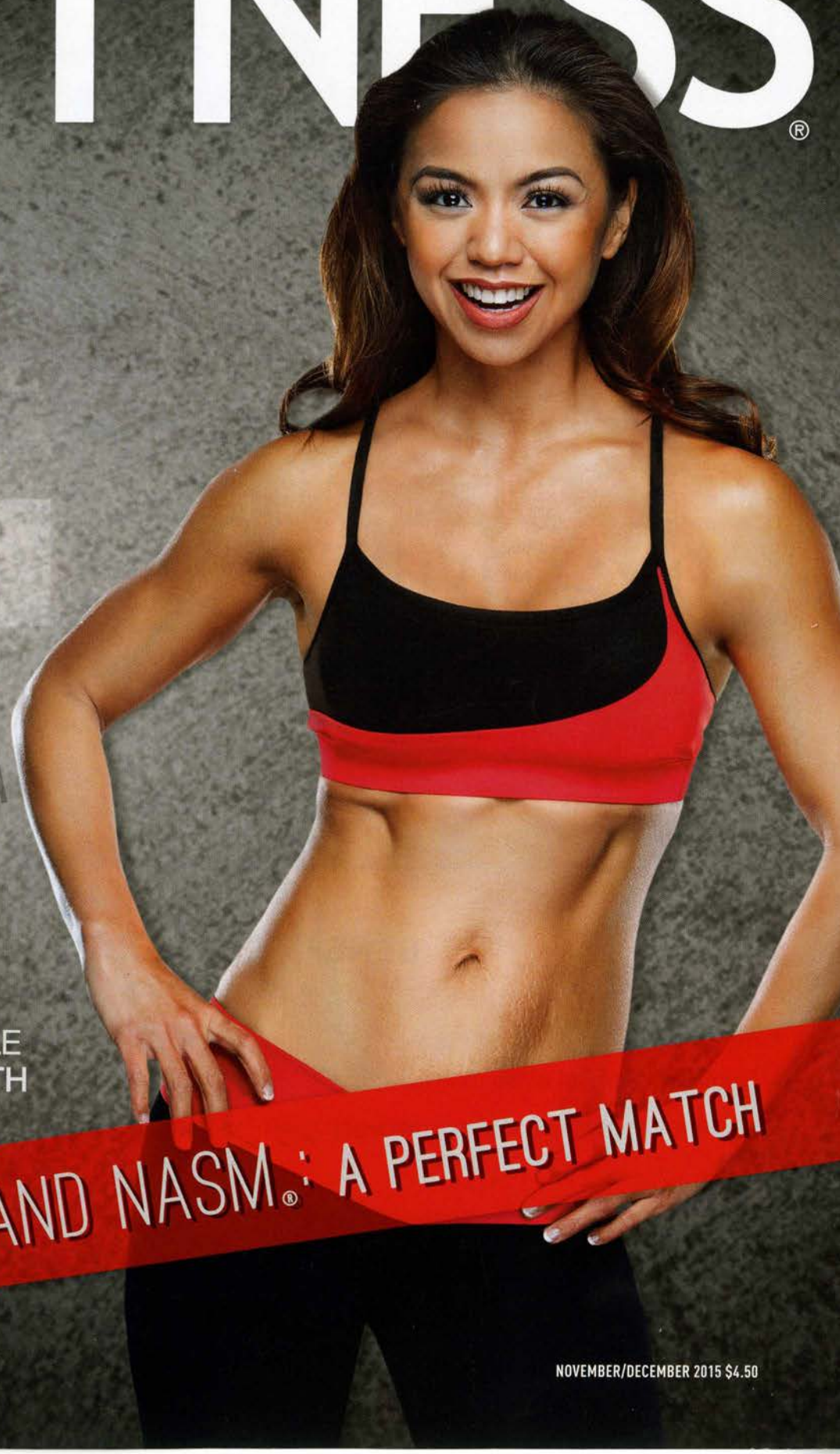

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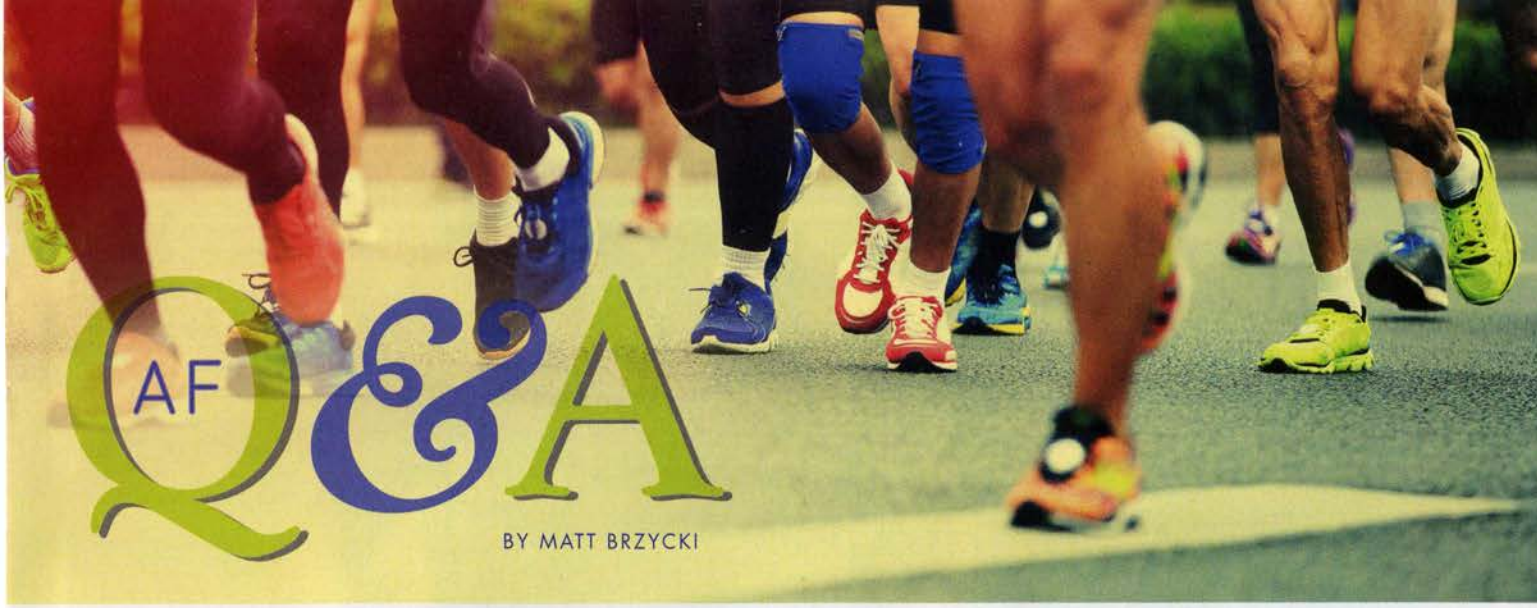

AF Q&A

BY MATT BRZYCKI

WHAT'S EXERCISE-INDUCED ASTHMA?

Exercise-induced asthma (EIA) is a transient narrowing of the airways that, as the name suggests, is triggered by exercise. Classic symptoms include chest tightness, coughing, wheezing, excess production of phlegm, sore throat and shortness of breath during or after exercise.

The condition is much more prevalent than most people think; it's estimated that 12 to 15% of Americans have EIA. Moreover, the condition is found in recreational athletes as well as elite athletes.

The symptoms of EIA are more likely—and more severe—during efforts that are intense or prolonged. So, those who suffer from EIA should adjust the level of their intensity and the duration of their effort accordingly. A low-intensity warm-up can reduce the symptoms of EIA.

Cold, dry air can exacerbate symptoms. Here, an effective tactic is to cover the nose and mouth when exercising outdoors in cold weather. A basic, lightweight surgical mask (or dust mask) can be used as a barrier against cold air. Warm, humidified air lessens the degree of bronchospasm, which suggests that swimming can be an excellent activity (provided, of course, that the surrounding air isn't cold and dry).

WHAT'S THE BEST WAY TO RECOVER AFTER HIGH-INTENSITY EXERCISE?

High-intensity interval training (HIIT) is all the rage. Exercise of such intensity places huge demands on the anaerobic energy systems and causes lactic acid to accumulate in the blood.

Elevated concentrations of lactic acid can irritate the nerve endings and produce pain, discomfort and distress as well as labored breathing and fatigue. To expedite recovery, it's important to clear the lactic acid from the bloodstream as quickly as possible.

Researchers assigned 12 males (average age 22.4) who were physically active to run on a treadmill at about 9.32 miles per hour on a 20% incline for two 30-second work intervals with a recovery interval of one minute of walking in between. This was enough "to induce fatigue and raise blood lactate to unsustainable levels."

Immediately after completing the second work interval, the subjects were randomly assigned to use an active recovery of four different intensities, a self-selected intensity or a passive recovery (complete rest).

The study found that activity recovery of higher intensities cleared lactic acid from the blood much more rapidly than passive recovery. What this means is that after HIIT, jogging a few quick laps would be better than walking a few slow laps or simply standing still.

WHAT ROLE DOES STRENGTH TRAINING PLAY IN HEALTHY AGING?

It's widely known that as people age, they experience a loss of lean body mass, particularly muscle mass. The role of strength training in preserving muscle mass—and, by association, functional strength—is obvious. But what about improving markers of overall health?

Data from 10,500 men (average age 58 at baseline) in the Health Professionals Follow-Up Study revealed that those who did strength training for at least 25 minutes per day experienced favorable outcomes, including a smaller waist circumference. This is interesting in that waist circumference can be used as a proxy to assess central adiposity. In general, having central body fat (being "apple shaped") is associated with a higher risk of type 2 diabetes, hypertension and cardiovascular disease than having peripheral body fat (being "pear shaped").

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.*

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