

The Evolution of *Endurance Sports*

A world-class coach explains the best way for athletes to go the distance

In the '80s there was a group of endurance-sport athletes and coaches who were often called *purists*, purists in the sense that they believed the best way to train for their sport was the sport itself. A distance runner who was a purist, for example, believed that weight training was a waste of time and that the only supplemental form of conditioning worth their time was stretching. Preparing for a 10K? Run a lot. Preparing for a marathon? Run a lot more. But as the level of performance has increased in sports that focus on the aerobic system, as it has with all sports, there has been a need for a paradigm shift in the way the best athletes are training.

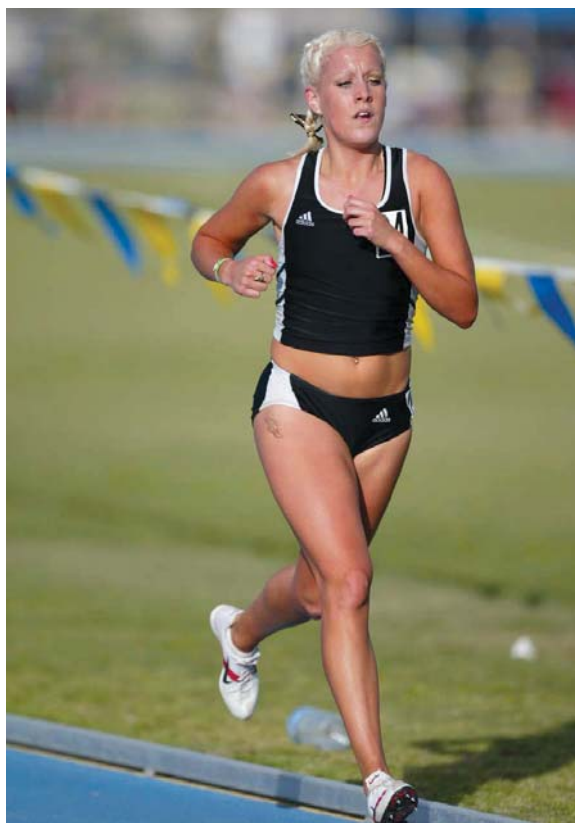
At the forefront of this training is Adam Zucco, director of coaching for TrainingBible Coaching. Zucco specializes in training endurance-sport athletes such as cyclists, distance runners and triathletes. He has a base of athletes at the Provena Mercy Medical Health and Wellness

Club in Aurora, Illinois, but he also travels across the world to work individually with elite athletes. Fifty-five coaches at four satellite centers work under Zucco, training a total of 150

kids and 300 adults.

In regard to training methods, Zucco says that endurance-sport athletes have to get away from the misconception that any weight training program will cause them to develop the muscles of a bodybuilder. "First, I would much rather race with a V8 engine than a V6, even though the V8 is probably going to be a little heavier," says Zucco. "It also takes a lot of work to add just a pure pound of muscle in the weightroom, and with the controlled amount of weight training we do with the BFS program our athletes are not going to be presented with the opportunity to bulk up."

Next, Zucco says that because the types of injuries most commonly incurred by endurance athletes are related to overuse, weight training is essential for his athletes. "Since putting my young triathletes on the BFS program, I've seen not only a drastic improvement in performance but a reduction in injuries as well. Also, a lot of athletes I work



University of Idaho SID photo

University of Idaho's Dee Olsen won the 2006 WAC championships in the 1500m and the 10k. Olsen is a product of the BFS system, having used the program under the direction of BFS Clinician Roger Freeborn while attending Estacada High School in Estacada, Oregon.

with don't have a lot of time to train, and weight training is a very efficient way for them to overload the muscles." This overload, adds Zucco, is especially important to cyclists.

In cycling, Zucco says, stronger athletes can make up for lost time, or expand a lead, because they can more easily handle hills and accelerate quickly at key points of a race. "With marathoners you are not going to have the sudden bursts of speed as you will in cycling, but a stronger runner will be able to more easily maintain their form on hills. So much of running performance is based upon efficiency, and the more a runner's form breaks down due to fatigue, the more energy it will take to run and the more likely the runner will be susceptible to injury."

Besides strengthening muscles, weight training may create possible hormonal changes that could benefit endurance-sport athletes, says Zucco. "I know that undulating periodization programs such as BFS have been proven in studies to improve the subjects' ratio of testosterone [male hormone] to cortisol [stress hormone]." Zucco believes that along with the confidence of going into the weightroom and continually breaking personal records with the BFS program, these hormone changes give his athletes more confidence and enable them to train harder and to recover faster.

To be objective, Zucco adds, strength training is just one variable that coaches must be concerned about. For example, one of the most common ailments among cyclists is lower back pain. Although stretching and strengthening exercises can help, often the problem can be traced to the bike itself. "One of the things that I do with my cyclists is to get them a proper bike fitting from a professional. A proper bike fitting, along with stretch-



Coach Adam Zucco

ing and strength training, will give a cyclist the best chance of avoiding issues with lower back pain."

Although the wealth of knowledge Zucco has would fill volumes of textbooks, he does have some simple, practical advice for coaches who work with young endurance-sport athletes. "The most important thing you have to work on with kids – and I know this is an unpopular statement – is to make sure their form is correct. After that,

strength is a major issue. When I start working with kids, their muscles may be so weak that when they try to squat, without any weight at all, their knees shake and collapse inward – there is no way this type of athlete will be able to support a good running posture until they improve their strength." Then there is the issue of overtraining.

"So often I'll see coaches who have good intentions, but they try to throw an amazing volume of training at these kids because kids are resilient and can handle it," says Zucco. "I want my athletes to be competitive, so I give them as much as their body needs to accomplish their goals but no more than that. If X plus Y equals Z, why throw a W in there just for the sake of throwing in a W? When you throw too much at kids at a young age, they get burnt out really quick and will often quit the sport, and that's a shame. One of my main goals is for them to be still doing and enjoying the sport when they are 30 years old." BFS

Joe Friel and Adam Zucco are partners in their company, TrainingBible Coaching. Here are a few of the popular training books available through their company.



Joe Friel