

StemEnhance and Athletic Training

By Christian Drapeau

The closest runner was more than 2 miles behind Nina Kraft when she crossed the finish line of the Ironman Triathlon in Hawaii, on October 16, 2004.

But instead of feeling triumphant, she kept her head down and barely looked up at the cheering crowd. A few weeks later, results showed she has tested positive for recombinant erythropoietin, a drug that boosts endurance. "I screwed up," she told the press. "I never really rejoiced over the victory in Hawaii. I was ashamed the entire time, especially in front of my family. I cheated." Since then, doping has become an increasing problem in competitive and Olympic sports.

So just about anytime an athlete is introduced to StemEnhance, the first question is, "Does it contain a stimulant? Will it show on testing for doping?" A number of years ago AFA had been tested for doping in horses, after a few trainers saw how large amounts of AFA helped horses on the racetrack. But because of the attention given to the problem of doping over the past few years, passing the doping test in horses was not enough for top athletes. So we recently contacted international agencies involved in testing for doping and tested StemEnhance.

Results: StemEnhance is safe for athletes.



ILISA



HANNA

But why would a healthy athlete be interested in StemEnhance? We are so used to thinking of health as the absence of disease, and athletes are the picture of health. To understand why athletes welcome StemEnhance, we need to think of health as the very optimal state of the body in order to achieve highest performance. From this point of view, supporting stem cells constitutes a unique training and performance strategy.

A little over a year ago, I received a letter from two high school students in Florida, Hanna and Ilisa Lee, asking if I would be interested helping them in a project for the local Science Fair. In their letter they made the case that if stem cells could travel to muscles and help muscles recover faster after exercise, then the ability to exercise the day after an intensive workout would be greater. Therefore, everyday athletes could go further in their training, turning in greater performances. Consequently, athletes taking StemEnhance should improve much faster. I was impressed. These two teenagers understood it all! I asked them for a detailed protocol and we signed an agreement. (My main motivation for a signed agreement was that I wanted them to take the project really seriously. A serious approach was the best I could do to foster the development of these two young scientists. Their project was a great opportunity for them to experience the excitement of scientific investigation.)

They went to work on their project and did a fabulous job. They documented how rowers at the University of Florida achieved greater performance over time when taking StemEnhance, compared to teammates not taking StemEnhance. Hanna and Ilisa's science project ended up serving as the preliminary work for a more in-depth controlled study currently being carried out by an expert in exercise physiology.

Now, let us look at the use of StemEnhance by athletes in more detail. In theory, how may StemEnhance contribute to giving athletes an "extra edge"? To understand this relationship, we need to look at the physiology of athletic training. When an athlete goes through daily training with maximum effort, numerous microscopic lesions take place in muscles, tendons and ligaments. These microscopic lesions rapidly become the sites of discomfort. The body's reaction to this discomfort produces molecules that create slight local edema in an attempt to increase blood flow, nutrient delivery and cellular circulation, as well as lymphatic drainage to eliminate cellular debris. But this process also creates molecules that mediate discomfort, and the goal of discomfort is to limit the person's movements to maximize the recovery process. The process of discomfort is very interesting, as it is designed to limit the exposure to further stress. A muscle that has micro-lesions

will not contract to the fullest, because the body will neurologically inhibit muscle contraction to prevent further discomfort. But if a person is an athlete in training, he or she takes some pain killer and goes through more training the following day, creating more lesions. As this process continues day after day, the athlete gradually develops a chronic situation that limits the ability to train to the fullest.

As part of the body's reaction to training stress, the micro-lesions also release compounds that attract stem cells, as stem cells carry out their role of daily renewal. The greater the number of circulating stem cells, the greater the number of stem cells that are available to migrate in the recovering muscles. As stem cells migrate into the muscle and become muscle cells, they may accelerate the process of recovery after intense workouts. As a consequence, the day after training exercise by an athlete using StemEnhance, the muscles may be better prepared for extra workout and the person may be able to exercise to a greater extent. The difference may be small when viewed day to day, but the difference can accumulate. As a result, the ability to train a little bit more everyday may lead to significant differences over time. So StemEnhance does not promote greater muscle mass or greater strength and it does not support some hormonal process; it simply assists the muscles, ligaments, tendons and connective tissue in their process of recovery after intensive workouts, perhaps allowing athletes to train everyday to the fullest, so they may tap more effectively into their own potential.

I remember that years ago -- before any knowledge of the effect AFA has on stem cells -- Dan O'Brien, 1996 Decathlon Gold Medalist was sharing in a television interview that the only supplement he was consuming was large quantities of AFA. He claimed, "All it does is give me an edge everyday." He may not have known exactly how AFA worked in his body, but he knew that AFA probably helped him become world champion.

These days an increasing number of athletes are including StemEnhance as part of their winning strategies. With the intense scrutiny athletes undergo to remain fierce competitors without the use of prohibited performance-enhancing drugs, StemEnhance -- a 5:1 concentration of AFA -- will prove a unique tool to support optimum training for top performance. As a result, the number of athletes using it will certainly increase, as StemEnhance makes its official appearance on lists of safe supplements for athletes. We await with great anticipation the results of the study investigating the effect of StemEnhance on performance by athletes. Significantly positive results from this study -- which is being conducted by an expert in the field of exercise physiology -- will help to confirm the evidence gathered by Hanna and Ilisa, as well as the experience of the many athletes who use StemEnhance each day as part of their training regimen.

To understand why athletes welcome StemEnhance, we need to think of health as the very optimal state of the body in order to achieve highest performance.