



## New Technology For Muscle Training And Recovery

Feb 1, 2005 12:00 PM

Gregory Florez

**Electromuscle stimulation (EMS)** recently has gained the attention of the public after some athletes revealed that they are using this technology to enhance muscle performance and recover more quickly between training sessions. Athletes that have used the equipment include amateurs and pros from Jerry Rice to European ski champion Hermann Maier. These athletes have benefited from EMS training in conjunction with their traditional training methodologies.

That's why we decided to look at the Compex Sport, a handheld EMS personal training device designed in Switzerland and assembled in the United States by Compex Technologies (with a U.S. office in New Brighton, MN.). The Sport uses a variety of electrical impulse (stimulation) protocols to aid in a variety of applications for the human body. After clearances by the Food and Drug Administration, the Sport is now available in the United States for the first time.

Compex electrical stimulation machines have long been used for enhancing performance and speeding recovery times by endurance athletes around the world, including world-class cyclists, runners and triathletes. It is not a device that should be compared with ab stimulators and other "quick fix" television infomercial products. The Compex Sport was designed through a collaborative effort of physiologists, engineers and athletes. The unit offers preset programs that target different muscles in the body, including shoulders, forearms, abdominals, back, glutes, thighs and calves. The unit also comes with a CD-ROM that includes specific training routines for more than 75 sport and exercise disciplines.

The company uses a unique electrical stimulation method to build muscle, strength and endurance. The feature that my company found most useful when testing, however, was the active recovery program, which speeds muscle recovery after a workout by increasing blood flow to the muscles that were worked. Again, the makers of Compex do not claim that the technology provides these benefits unless exercisers and athletes are engaging and training in traditional strength, flexibility and aerobic programs as part of an overall fitness strategy.

We tested the Compex Sport on several users from competitive cyclists and runners to baby-boomer health-club exercisers looking to reduce soreness, relax stiff muscles and recover in between their workouts. In each case the response was incredibly encouraging after testing.

Here are some examples of what we found: We had a 45-year-old man who was a recreational cyclist. His rides caused his muscles to be constantly sore, especially those muscles in his thighs, illiotibial band and glutes. We used the active recovery protocol three times per week after each one of his rides. Within a week, his soreness had completely dissipated. Moreover, he reported that his leg muscles seemed to recover much more quickly than before, and he was able to increase both his riding frequency and intensity.

Another example comes from the experience of a 35-year-old climber, who practiced both indoors and outdoors. He used the muscle stimulation program two times per week and found that his grip strength increased significantly while his recovery time decreased between difficult climbs.

We used the Compex Sport with a variety of other outdoor recreational athletes, and each reported similar results. Most significantly, almost everyone who tested the machine saw improvement by using the Sport and wanted one for themselves after using the machine for several days.

The handheld Compex Sport works with a four lead wire system and comes with sticky electrode pads that adhere to the skin. It also comes with a control console that offers more than 75 programs for specific muscle groups and protocols. A plug-in battery charger makes the unit mobile, and the user-friendly manual and an interactive CD training planner helps trainers, coaches and individuals use the device safely and correctly.

When demonstrating the Compex Sport to health club trainers and massage therapists, many of them viewed the unit as something that could aid their clients, and in some cases they thought it could be used as a value-added service offering for which their club could charge additional fees.

It's important to remember though that the Compex machine is a sophisticated device and should not be used for certain special medical populations including people with pacemakers, epileptics, pregnant women and others. The company provides a checklist of appropriate screening questions that can help users determine which clients should use the machine.

The Web site for Compex ([www.compex-us.com](http://www.compex-us.com)) includes additional research on EMS and its benefits.

Most

Per  
Sev  
Uni  
Mer  
Uni  
Five

Ask tl

ASK  
expe

Resol

Buyer'  
Sear  
Sear

Classif  
Find  
Buy  
Purc  
Heal

Top 10  
Reac  
Purc  
Reac  
2005

Club I  
See

News  
Subs  
See

Step b  
Lear  
For I  
Step  
Step  
Step  
Step  
Lear

Brows

**Back to Top**

**Browse Back Issues**



March 2007



February 2007



Jan 2007



Dec 2006



Nov

[Home](#) | [Penton Media, Inc.](#) | [Contact Us](#) | [Subscribe/Manage Your Subscriptions](#) | [For Advertisers](#) | [For Se](#)