Can a high-intensity training method favored by special operations forces, elite police units and MMA champions transform the sport of triathlon?

By T.J. Murphy | Photographs by Tony DiZinno
The Crossfit-based plan for endurance sports hinges on low-volume, high-intensity training designed to constantly shock the body.

On June 18 last summer, Guy Petruzelli, a 37-year-old professional triathlete from Westmont, Ill., was riding his bike when he was hit by a car. He suffered multiple fractures to his collarbone and three broken ribs. Ten days later he was told his season was over, and then the surgeon drilled seven screws and a plate into his breastbone. Said the doctor to Petruzelli, “I don’t think you’ll be able to train hard until December.”

Pity the doctor issuing orders to a driven triathlete—the surgeon’s words had the impact of elevator music. Virtually his next stop after post-op was a gym on the west side of Chicago, a Crossfit gym, Crossfit being an aggressive approach to fitness that in the last decade has stormed across the country with cultish fervor.

“I went to see my guys at Crossfit, Nate Aye and John Conquest, and my coach, Jen Garrison,” Petruzelli says. “I told them I wanted to do two things: First, get healthy faster than my doctor’s projections, and second, get stronger and faster at the same time.”

The Crossfit team started him off with simple, non-jarring lower body movements and agility moves. Two weeks later he was cleared to ride an indoor bike. Petruzelli says he was stunned to notice that not only had he lost no fitness, but his power intervals showed an upward spike. Impressed with the effect, he immersed himself in learning about the Crossfit-based plan for endurance sports, a philosophy that hinges on low-volume, high-intensity training designed to constantly shock the body.

“I’m an old-school endurance guy,” says Petruzelli. “I was skeptical, but I committed myself to doing everything exactly as it was written.” A few weeks after he was cleared to begin running again in August, Petruzelli performed a session of mile repeats at 5:15 pace. He was faster than before the accident. “And my lactate threshold on the bike was up 33 percent. It was insane. I asked, ‘How the hell is this happening?’”

On Oct. 24 he raced an Olympic-distance triathlon and recorded the fastest split on the 10K run course, 31:48. “I haven’t run
like that since college,” he says. He has decided to train the Crossfit way for the entirety of 2011.

Brittany Rutter, a 34-year-old age-grouper and USAT-certified coach had a similar surprise using Crossfit. From Sea-bright, N.J., Rutter, a longtime coach and personal trainer, had been frustrated for years trying to get back to a 2003 Ironman Lake Placid PR of 11:33 despite multiple attempts. “I wasn’t getting any faster,” she says. “I wasn’t having any fun. I wasn’t ready to give up but I knew I needed to do something different.” Rutter went to a Crossfit Endurance certification and despite her skepticism—she would be trading in five-hour bike rides and two-hour runs for time trials, intervals and high-intensity gym sessions—she followed the program to the letter almost as if to prove it was wrong. “I thought, ‘this is going to be the biggest waste of my time.’”

There were no 60-minute recovery runs or easy spins. “Recovery was sleep,” she says. The training was shockingly intense—she had one interval workout that consisted of five one-mile repeats, each mile an all-out effort—and at times isolating. “I have five friends that were training for [ironman] Lake Placid. I was the only one doing Crossfit,” she says. “They’d go out on their five-hour bike ride and I’d go off on my 30-mile time trial. They’d tease me later with text messages: ‘Are you taking a nap yet? They didn’t get it.’

Despite the lower volume, Rutter burned off six pounds. “I was eating more than ever. And my physical therapist asked me, ‘Do you know how much better off you are?’ My hips were looser and my iliotibial band was healthy.” At Ironman Lake Placid she finished in less than 12 hours and PR’d her run. She also saw that three Crossfit athletes doing their first Ironman, one a mother of three in her late 40s, all recording impressive times. Rutter is now preaching the gospel admitting, “I can’t return to the old ways I used to coach.”

The Crossfit movement looks one part Navy SEAL training, one part post-grad exercise physiology and one part vast social network, all with a heavy metal soundtrack.

I first heard about Crossfit two years ago when I watched from an L.A. Fitness treadmill as a personal trainer hammered a client through a relentless form of circuit training. The trainer was 5-foot-2 with a gymnast’s body, shrink-wrapped in black Lycra, impatiently leaping and bounding around her client, issuing commands, correcting form and coaching with the intent of an air traffic controller. The client was heaving for air and his eyes spun like pinwheels. He had him rotate furiously between sets of medicine ball throws, squat jumps and presses with dumbbells. I figured I was maintaining a heart rate of 135. He looked to be jamming up against 200. I talked to the trainer and she told me about Crossfit. Later that day I poked around Crossfit.com and was introduced to a fitness movement that looked like it was one part Navy SEAL training, one part post-grad exercise physiology and one part a vast social network, all with a heavy metal soundtrack.

In reading about Crossfit, you’ll note the founders still seem peeved that a 1997 issue of Outside magazine ran a photo of six-time Ironman champion Mark Allen on the cover and labeled him the fittest man alive. “For Crossfit the specter of championing a fitness program without clearly defining what it is that the program delivers combines elements of both fraud and farce,” the Crossfit Journal stated in 2002. “Our incredulity on learning of Outside’s awarding a triathlete title of ‘fittest man on earth’ becomes apparent in light of Crossfit’s standards for assessing and defining fitness.” The October 2002 issue then lays out a lengthy definition including three standards of fitness, 10 general physical skills, skill mastery and the thorough development of three “metabolic engines”—the phosphagen system for high-powered work, the glycolytic system for medium-powered and the oxidative system for low-powered. More specifically, the phosphagen system is the adenine...
triphosphate (ATP) energy system that is the most readily available source of energy in the muscles. Crossfit’s accelerating popularity has spawned gyms throughout the country, with 2,300 affiliates and a website that attracts 4 million visitors per month despite incendiary buzz that surrounds it. A story on Crossfit in the New York Times was headlined, “Getting Fit, Even if It Kills You.” Outside reported a description of a Crossfit splinter movement as having fitness routines “said to be so intense, so mind-numbing, that they brought even the hardest men to their knees, whimpering in slacks of their own sweat.” Veteran Crossfitters are known to refer to their fabled mascot, Pukie the Clown, when they ask newbies, “Have you met Pukie yet?”

**Quality, Not Quantity**

An hour sifting through the Crossfit website can inspire awe. There’s a heavy connection with the military, elite police units, a survival-of-the-fittest ideology and a bank of expletive-inspiring WOD videos, WOD standing for “workout of the day.” WODs are commonly referred to as the “girls”: circuits with names like Fran, Heavy Fran, Grace and Helen. One of the more famous WOD videos—named Nasty Girls—is a tape of three women in super hero-like condition performing three circuits of a combination of squats, muscle-ups performed on gymnastics rings and power cleans with barbells, with no rest. By the end of the first set the intensity is acutely visible as the women try to shake fatigue out of their arms. By the last circuit one of the Crossfitters battles to complete the muscle-ups, faltering several times, yet, astonishingly, persists through the remaining reps. The final set of power cleans looks ready to crumple her but she finishes with an emotional flourish, tears flying.

Crossfit Endurance has been gaining interest as an approach to training for triathlon. Founded by Brian MacKenzie, a powerlifter and strength coach who leaped into triathlon in 2000, Crossfit Endurance was launched in late 2007 after MacKenzie spent two years experimenting with making Crossfit the foundation of his preparation for 100-mile ultra-runs. In his blog called “Unscared,” lamunscared.com, MacKenzie reported...
that he placed 34th out of 125 runners at the Angeles Crest 100 after training only 6.5 hours per week. “My biggest week of running was 36 miles,” he wrote.

In supplanting high volume for high intensity MacKenzie relied on a 2006 McMaster University study published in the Journal of Exercise Physiology that compared the training effect of short-term sprint intervals versus traditional bouts of long, slower distance workouts. The conclusion stated, “these data demonstrate that sprint-interval training is a time-efficient strategy to induce rapid adaptations” and exercise performance “comparable to endurance training.”

MacKenzie says the results he’s been seeing consistently have him believing that Crossfit Endurance is a game-changer and will eventually overhaul the approach of anyone serious about endurance performance. “What I’m saying is quality, quality, quality, with constant variance. What we’re seeing across the board is improved performance with one-third of the volume.”

BLAZING THE TRAIL
Two different categories of WODs comprise the Crossfit Endurance program: strength and conditioning WODs and sport-specific WODs. The Crossfit Endurance website, Crossfitendurance.com, posts the workouts each day. Traditional recovery sessions, such as an easy bike spin or jog, are slashed
from the calendar. The always-varying strength WODs are typically short, high-intensity bouts of 20 minutes or less. The sport-specific work is usually something like a time trial or interval session. The sessions are brief and taxing. As Southern California Crossfit trainer Nuno Costa tells me, “Always be wary when a Crossfit trainer tells you, ‘It’s only 12 minutes,’” meaning that 12 minutes at maximum effort can seem like a long, long time.

Will MacKenzie’s prediction prevail—that a training movement using Mark Allen as an example of what’s wrong with triathletes will transform the sport? Classic endurance training remains rooted in the philosophy of the late running coach Arthur Lydiard, in which you build a base using months of aerobic training, then move into a strength phase and then, nearing a championship, use speed training and racing to hit a peak.

Crossfit Endurance is radically different. MacKenzie says there is no base phase, that the best way to train for an endurance event is to constantly be training all energy systems with variety, power, speed and skill.

Conventional wisdom says no way, but in recent years the endurance world has been moving in this direction. Jay Johnson, a University of Colorado running coach who produces strength-training videos for RunningDVDs.com, says that endurance athletes need the strength work.

“Endurance activities are basically catabolic—they break you down—and general strength is anabolic—it builds you up. Endurance athletes need some anabolic activities in their training week to offset all the catabolic time spent running, biking and swimming.”

“I’ve been watching the forum boards shift into being more open-minded about Crossfit,” MacKenzie says. “At first I was the antichrist. But now it’s becoming more acceptable.”

Triathlon was a sport blazed by pioneers. If Crossfit Endurance becomes popular it will be because the likes of Petruzelli and Rutter found success in blazing the trail.

1. Don’t be intimidated. “Everyone there is there to support everyone else,” Guy Petruzelli says. “It’s a very positive atmosphere.” Brittany Rutter agrees: “The truth is that Crossfit has a culture like triathlon. Reach out for help. The community is incredibly open and supportive.”

2. Visit the Crossfit Endurance website (Crossfitendurance.com). “Crossfit is growing at a fast pace, and there are going to be a few gyms out there that are out there to destroy,” says founder Brian MacKenzie. Go to our site and contact us. We’ll send you in the right direction. You need to go to a gym where they’re smart and safe above all.” Adds Petruzelli, “The guys who run these gyms are keen on injury prevention. No one wants you to get hurt.”

3. Be patient and take responsibility for making a safe transition. MacKenzie advises triathletes to ease in. “Yes, this stuff is really intense and if done incorrectly can land you in the hospital,” he says. “So can doing an Ironman. But they’re two different beasts. So scale the weight, reps or time down to fit your ability level.”

4. Take a Crossfit fundamentals course. A fundamentals course is typically the prerequisite for taking Crossfit classes. You’ll be taught proper technique for the exercises and power lifts, get exposure to how the WODs are performed and get into the rhythm of how the gym operates. “You’ve got to have the technique to do the strength training,” Rutter says. “You really have to commit yourself to getting the skills down.” Nutrition is also discussed.

5. Go in with an open mind. Petruzelli says that to get the most out of the program you have to let go of what might have worked for you in the past so you don’t spend all your energy fighting it. And be prepared for a potential rude awakening: “I thought I was going to own the place,” Petruzelli recalls. “I was so humbled. There were women in there knocking out pull-ups and I could barely do any.” Remarks MacKenzie, “The ego has to be put aside.”

1. Don’t be intimidated. “Everyone there is there to support everyone else,” Guy Petruzelli says. “It’s a very positive atmosphere.” Brittany Rutter agrees: “The truth is that Crossfit has a culture like triathlon. Reach out for help. The community is incredibly open and supportive.”

2. Visit the Crossfit Endurance website (Crossfitendurance.com). “Crossfit is growing at a fast pace, and there are going to be a few gyms out there that are out there to destroy,” says founder Brian MacKenzie. Go to our site and contact us. We’ll send you in the right direction. You need to go to a gym where they’re smart and safe above all.” Adds Petruzelli, “The guys who run these gyms are keen on injury prevention. No one wants you to get hurt.”

3. Be patient and take responsibility for making a safe transition. MacKenzie advises triathletes to ease in. “Yes, this stuff is really intense and if done incorrectly can land you in the hospital,” he says. “So can doing an Ironman. But they’re two different beasts. So scale the weight, reps or time down to fit your ability level.”

4. Take a Crossfit fundamentals course. A fundamentals course is typically the prerequisite for taking Crossfit classes. You’ll be taught proper technique for the exercises and power lifts, get exposure to how the WODs are performed and get into the rhythm of how the gym operates. “You’ve got to have the technique to do the strength training,” Rutter says. “You really have to commit yourself to getting the skills down.” Nutrition is also discussed.

5. Go in with an open mind. Petruzelli says that to get the most out of the program you have to let go of what might have worked for you in the past so you don’t spend all your energy fighting it. And be prepared for a potential rude awakening: “I thought I was going to own the place,” Petruzelli recalls. “I was so humbled. There were women in there knocking out pull-ups and I could barely do any.” Remarks MacKenzie, “The ego has to be put aside.”