

Challenging the Definitions of Fitness

The Firefighter Combat Challenge is about power and functional movement. So is CrossFit. What does that mean for the future of fitness?

Mike Warkentin



Jim Shields

"The whole point of this thing is to sort of beat you down. When it's all said and done, you're moving very heavy masses and trying to move them fast."

Dr. Paul Davis isn't describing CrossFit. He's talking about the Firefighter Combat Challenge, an event he invented in the '70s to predict the success of the men and women who run into burning buildings and carry out the people trapped inside.

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The Blackboard and the Whiteboard

Davis' creation is now a big-time event with a World Championship held every year. It's been featured on ESPN for over a decade and can now be seen on the Versus network. Davis calls it "the toughest two minutes in sports," and the Firefighter Combat Challenge just might be the most difficult workout not spent in the company of Fran.

During the event, two competitors race through a course that includes a five-storey tower climb, a 42 lb. hose hoist, a chopping simulation with a 9 lb. shot mallet, a serpentine run/hose pull, and a dummy drag (175 lb.). The challenge is done with full turnout gear: a high-pressure breathing apparatus and structural firefighting equipment certified by the National Fire Protection Association.

The goal of the course is to simulate the tasks firefighters see every workday.

"The components that comprise the Firefighter Challenge are actually criterion tasks that were identified through a comprehensive job test analysis for their frequency, reproducibility and arduousness," Davis says. "So they are, if you will, a microcosm of what firefighters are expected to do."

He continues: "The mission statement for our research design was to identify those physiological constructs that were predictive of success in structural firefighting; to wit, why you could then use this as an employment tool. I subscribe very strongly to the theory that it should not be management's responsibility to rehabilitate you to get this job. You should show up prepared to go."

Suddenly the blackboard near the drill tower was full of names and times, with elite firefighters attempting to best their brethren on the gruelling course.



John Leonard

Globo Gym can't help you: functional fitness is required to do well in the Firefighter Combat Challenge.



Jim Shields

CrossFit helped Chris Cerci lower his Combat Challenge time from around three minutes to a fast 1:39.

It took several years for Davis to discover that his challenge was more than just a way to measure fitness—it was a way to encourage it.

“When we set this scenario up at the Maryland Fire and Rescue Institute,” Davis recalls, “we had asked these firefighters to self-pace through this assemblage of five tasks as they would at a fire, and what became immediately apparent was, No. 1, there are huge variations in physical capacity and capabilities, and two, that those firefighters who tend to be on the more fit side are hugely competitive. They’re not satisfied with just a mediocre approach. These guys wanted to go after it tooth and nail.”

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“We’re interested in looking at the physiological constructs that predict success: oxygen uptake kinetics and lactate levels and all this sort of stuff,” Davis says. “Quite frankly, firefighters don’t give a rat’s ass about that stuff. They just want to know, ‘How fast can you do this?’”

By 1980 Davis was marketing the event, and a growing number of firefighters were registering to compete. The event itself was teaching many competitors a definition of functional fitness that went beyond big biceps.

“In 18 years of having run this competition, we’ve got a lot of misconceptions still,” Davis says. “People misconstrue the constructs and dimensions of fitness. They come back and they’ll say, ‘I added 75 lb. to my bench press,’ and I go, ‘OK, and that does not translate into high performance.’”

Davis says his sport is about power—moving a lot of mass in a short time.

Sound familiar?

CrossFit and the Combat Challenge

Chris Cerci works for the McKeesport Fire Department in Pennsylvania and is a veteran of about 35 Combat Challenge events. When he first tackled the course, his times were near the three-minute mark, well off the world record that sits below 1:20.



Brandon Cunningham (left) has used CrossFit methods to dominate the Firefighter Combat Challenge for the last three years.

"Previously, I just tried to maintain a pretty healthy lifestyle," Cerci says. "I wasn't really training at the level I needed to be training at to advance on this course because it's so brutal."

Cerci altered his training to include intervals, but then he made a discovery that changed everything.

"In 2007 I started hearing guys talking about CrossFit and stuff, so I started adding some of the CrossFit workouts into my training regimen as well. ..." Cerci says. "... Once I started doing that, 2007 was my best year. I had my fastest time. I ran a 1:39 time, which at this point is my fastest on record."

The results were on the scorecard, and they spoke volumes. Cerci was hooked on CrossFit.

"This (CrossFit) is the best thing I've come across ever for fitness," he says. "I've tried my own things in the past and stuck to that bench press, shoulder press, all that bull crap at the regular Globo Gym. CrossFit is—by far, hands down—the best I've ever come across."

"It's easy to tell the difference between someone who consistently trains for functional fitness and someone who doesn't, because you'll see those shortcomings. Someone may be strong as a bull and they'll get tired quickly."

—Brandon Cunningham

Beyond sprinting up stairs at the Challenge, Cerci believes CrossFit makes him better at his job.

"It's not that hard to explain: I don't get tired," he says. "I can go and go and go. People have to tell me to take a break, and I'm like, 'I don't need a break. I'm still fresh.' Meanwhile, guys will go in there and they're done in 10 minutes. It (CrossFit) produces such a standout person just because of the level of work power that they can put out. I just work and work forever."

Brandon Cunningham is the three-time defending Combat Challenge world champion. He isn't about to refute Cerci's claims. In fact, Cunningham is proving them to be accurate by recently posting a blistering time of 1:17.31 at a Scott FireFit Championship event held Aug. 15 in Windsor, Ontario. The Canadian course is very similar but not identical to the American version, so the Combat Challenge world record of 1:19.02 still stands—but Cunningham's time is impressive nonetheless.

"In 2006, that was the first year I won World's, and the times were good," says the firefighter based in Augusta, Georgia. "I had a personal best of 1:24, I believe. And then I just rolled with CrossFit. ... I started dabbling in that, and then I went up to the CrossFit gym in Atlanta because there was none here in the area at that time, and I started adopting some of that stuff, and it seemed better. My PR increased by two seconds."

CrossFitters, of course, know every second counts, and two seconds is a large margin in the upper echelons of any sport—or in a fire.

"Towards the end of last year and this year, what I've found is I've really dialed it in using the CrossFit methodology and the movements and applying it to sport-specific training," Cunningham says. The Firefighter Combat Challenge World Championship will be held in Las Vegas, Nevada, in November, and Cunningham is pretty sure he'll be there to defend his crown. He's also got his sights set on another competition—one held at a ranch in Aromas.

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"I'd love to do the Games," Cunningham says. "I'm fortunate enough with the Challenge that I'm about to the end of the road. There's not much left to do as far as accomplishments. I love CrossFit, I so I'd like to start doing that and possibly make the Games next year."

In the meantime, Cunningham is planning to open his own CrossFit box and has started the affiliation process.

More Challenging Than Fran?

Jeff Leonard of Pleasant Hill, California, won the NorCal Regional Qualifier and finished 14th overall in the CrossFit Games. Less than a week later, he won the Fremont, California, Combat Challenge with a time of 1:28.81. Leonard had no idea how he'd do in the Challenge after the Games left him sore for most of the week between the events.

When asked about whether Fran is harder than the Challenge, Leonard is noncommittal.

"Aw, they both suck," he says. "It's a different feeling you get for each one. After the Challenge, it's a lot more legs. You have a really hard time walking. Fran, overall your body just feels horrible."

He adds: "I'd say the Challenge is probably harder because you have to concentrate more because you're doing more manipulation and moving yourself through space more and you have to make sure that you're not only pushing yourself as hard as you can but doing things absolutely 100 percent correct."

Competing in previous Combat Challenge events obviously prepared Leonard for the row/sledge/row workout from the CrossFit Games, where he finished second to Tommy Hackenbruck. Leonard uses about half his year to get ready for the Combat Challenge and spends the other half training for the CrossFit Games.

Dr. Davis has been compelled to research the CrossFit program and its methodology because he sees its efficacy at every Combat Challenge.

"When I was training for the Games, what I would do was a strength workout where I'd take a front squat or something pure strength-oriented, either front squat or deadlift or back squat, and then I'd follow that up with a clean or a snatch workout," Leonard says. "Then I'd go into some sort of circuit, like a pull-up/push-up, or a pull-up/bench press/jerk workout, trying to combine those three. Then I'd go into doing some Combat Challenge course



Staff Photo

Jeff Leonard used CrossFit training and skills learned on the job to finish second in the row/sledge/row WOD at the CrossFit Games.



John Leonard

Jeff Leonard managed to recover from the CrossFit Games and win the Combat Challenge in Fremont, California, less than a week later.

work or some sort of anaerobic tolerance workout, doing hill sprints or bleachers, something really high intensity, trying to mimic the Challenge.”

Presently, Leonard is training for the Combat Challenge World Championships, where he’s finished 11th for the past two years.

A CrossFit Combat Challenge?

In addition to Cerci, Cunningham and Leonard, many competitors at Combat Challenge events are strong supporters of CrossFit. Given that so many of his athletes speak so highly of CrossFit, Davis has been compelled to research the program and its methodology. After all, he sees its efficacy at every Challenge—an event specifically designed to predict the success of firefighters in the real world.

“The proof is in the pudding, because it’s pretty evident that a lot of our standout athletes regularly engage in (CrossFit),” he says.

With that in mind, Davis is presently considering a crossover event where CrossFitters might compete in the challenge, much like NFL players have in the past.

“We like to say it’s a competition with a purpose, and therefore the fitness has to come with a purpose,” Davis says. “We’ve actually been thinking about opening up certain opportunities for CrossFit people to come out and actually apply this training to see what it translates into in terms of our world.”

The doctor wants to find the best ways to make firefighters successful on the job. CrossFitters want prove the program’s value in a measurable and repeatable manner. The Firefighter Challenge offers an opportunity to do both—and who wouldn’t want to see Mikko Salo racing Brandon Cunningham?

“Imagine how much fun it would be,” Davis says. “I’m very interested in where this thing could go for both of us.”



About the Author

Mike Warkentin works for the CrossFit Journal. He’d like to thank Chris Spealler for teaching him kipping knees-to-elbows during a recent workout with James (OPT) FitzGerald, Brett (AFT) Marshall and Lisa Ray in Calgary, Alberta.



Mark Gist

Three-time world champion Brandon Cunningham nears the Combat Challenge finish line at the World Championships in Las Vegas.