

the **CrossFit**

JOURNAL ARTICLES

The Fire Service and CrossFit

The Perfect Combination

Mike Contreras



The Orange County Fire Authority (OCFA) serves 1.3 million residents in southern California. Responding from 60 fire stations, OCFA covers over 550 square miles. The OCFA has more than 800 career firefighters. To help them manage their fitness, the Fire Authority established a wellness and fitness program in October 2003 (IAFF and IAFC Wellness and Fitness Initiative).

As a result of the wellness and fitness program, OCFA basically stumbled onto CrossFit. Starting in September 2004, our trainers began traveling around the country attending seminars

and workshops on a variety of workout topics. Some of these courses were very informative. Some were a waste of time. The goal was to build a functional movement-based program, focused on performance.

It was during this time that a new member of the department, firefighter Tony Duchi, introduced his fire station crew to a web-based workout program called CrossFit. One of the crew members was Jeff Hoey, one of the department's 36 ACE-certified trainers. Jeff contacted me and a few other trainers and we began to do the workout of the day (WOD) as prescribed. The first thing that came to mind during the workout was that it was fun. The workouts created competition between crew members and left each firefighter feeling like they had just finished fighting a fire. As we further explored the CrossFit methodology, we realized this was a perfect workout for firefighters because the exercises simulated fireground functional movements, the workouts were done at firefighting intensity, and the movements were as varied as the emergency call load. Needless to say, we were sold.

We proposed a change in the way physical fitness was done during the fire department's 14-week basic firefighter recruit academy. The fitness program in previous academy sessions had consisted of forced-march runs and a traditional weight training circuit. OCFA management was open to the idea of changing the academy fitness program in hopes that the new program would help decrease the number and severity of injuries experienced in previous academies. In order to correctly evaluate the needs of the academy, a task analysis of the department's manipulative skills was done. The analysis revealed that the majority of firefighting tasks included squatting, lifting, pressing, and pulling. Tasks were typically done with 60 pounds of protective clothing and respiratory protection, not including the weight of the hose, ladders,

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tools, and other implements. The analysis also revealed that movements and tasks were performed for extended durations, at various intensities. In fact, most skills resulted in a heart rate between 165 to 190 beats per minute for 20 to 30 minutes, without a break.

The CrossFit methodology was gradually introduced in the recruit academy, and we began the first few weeks of the academy with basic movements, spending a lot of time and attention on correct form. WODs were introduced during the third week of the academy and were used as part of the fitness program for the remainder of the 14 weeks.

The results were amazing! The recruits showed a 14% improvement in their fitness level from week 2 to week 13 of the academy, indicating an increase in muscular strength and endurance. In addition, 55% of the recruits reduced their body fat percentages. The results of the 30-minute endurance workout showed a 67% increase in the average number of repetitions the recruits were able to perform. Heart rate data gathered during the workouts also indicated that the physical training program was adequately preparing recruits to work at the exertion level that is required on the job (165 to 190 beats a minute, as mentioned above).

According to post-academy questionnaires, recruits were satisfied with the physical training program and said that the program had adequately prepared them for the physical demands of being a firefighter. Moreover, not a single recruit lost instruction time due to injury.

The recruit academy fitness program was a success and a decision was made to share the CrossFit methodology with the men and women who make up our operations personnel.

One challenge of implementing fitness programs in our department is the 800 personnel and the 550 square miles that our stations cover. Because of its online accessibility, CrossFit easily rose to this challenge.

The OCFA started formally introducing CrossFit to the members by conducting a series of three-hour classes, broken up into a classroom portion and a practical portion. The classroom portion included an introduction to the CrossFit methodology and explained the concept of scalability and CrossFit's applicability to the job of a firefighter. The consequence of not scaling to personal fitness levels (good ol' Uncle Rhabdo) were also addressed. Once the classroom portion was completed, the group headed outside for basic movement instruction. We finished the class with a workout. We offered two workouts, one for the advanced students and a scaled-down version for the moderate and intro groups. As of the time this article was written, the OCFA trainers have presented the CrossFit concept and methodology to over 200 of our 800 firefighters.

In an effort to promote a department-wide fitness philosophy, we have begun a series of group WODs held at our Regional Fire Operations Training Center (RFOTC). These workouts



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take place every other Friday and bring together personnel from all around OFCA. The RFOTC is centrally located in Orange County, allowing people the opportunity to attend either before duty or following a shift change. Our facility is equipped with Concept II Rowers, Dynamax medicine balls, slam balls, 22-inch boxes (the height of the tailboard on fire engines), dumbbells, and pull-up bars.

The OCFA has seven CrossFit-certified instructors and we hope to certify our remaining 29 trainers. We are currently working with CrossFit to host a certification seminar at our training facility in 2007. Our short-term goal is to educate every firefighter within our organization. Our ultimate goal is to inform fire departments across North America and guide them so that they can improve their members' fitness and better protect their members' lives. It is this goal and our commitment to firefighter fitness that drives us to share CrossFit methodology.

We train as if our lives depend on it—because they do.



Michael Contreras is the Wellness and Fitness Coordinator for the Orange County Fire Authority (OCFA) in Irvine, California. His duties include overseeing the department's 36 trainers, designing and implementing various fitness programs for over 800 firefighters and for the department's recruit academy.

He has been with the OCFA for 17 years, during which time he has been a firefighter, firefighter/paramedic, and captain/paramedic. Mike is an ACE-certified fitness trainer and CrossFit level-2 instructor.