

Health&Nutrition

A Good Fit: Exploring the Benefits of CrossFit for Runners

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ByCarolyn Van Der Meer



- Kathy Thomas, a participant at CrossFit Toronto.



• George Saati (left) and Mike MacSween (right), participants at CrossFit Toronto.



• From left: Dustin Sexton, Kevin McDonald, Eileen LaCroix, Freyja Spence, Kathy Thomas, Neil Boland, Jeff Sommer and Vicki McCoy, participants at CrossFit Toronto.



Robin Maier, owner of CrossFit Regina in Saskatchewan.

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Kathy Thomas, a participant at CrossFit Toronto.

Runners are flocking to this full-body fitness program, so we jump into the high-intensity world of CrossFit to investigate whether it lives up to the hype

Created in California in the mid-1990s by former gymnast Greg Glassman and his wife Lauren, CrossFit has gathered a serious following in the last five years. Glassman's first CrossFit gym opened after his mandate to train the Santa Cruz police department - and probably not coincidentally, the program first became popular among police officers, firefighters and military personnel. More than a fad it seems, the routine that promotes overall fitness and functional movement is now growing in popularity among the masses. In 2005, there were 18 affiliated CrossFit gyms in North America; now there are 1,700 worldwide.

A combination of track and field, gymnastics and Olympic weightlifting, CrossFit describes its athletes as "equal parts gymnast, Olympic weightlifter and multi-modal sprinter or 'sprintathlete'". And according to CrossFit Montreal owner, 41-year-old RCMP officer Jacques Ambroise, CrossFit is a mix of cross-training, interval training and circuit training. "These three approaches applied in these three ways develop a balanced physique in terms of performance," Ambroise says.

The increased hype around CrossFit is making runners take notice. "Runners at my gym say they notice increased strength, speed and power," says Robin Maier, owner of CrossFit Regina in Saskatchewan. A mix of aerobic and anaerobic training, some runners have reported shaving seconds or even minutes off their race times and reducing injury through CrossFit. "People who only train aerobically may increase their endurance," says Ambroise, "but they also increase their injury rate from repetitive movements."

Runners can also use CrossFit to gain strength and power for their lives outside of running. "It's all well and good to have stamina," says Ambroise, "but it doesn't improve your ability to lift groceries." And therein lies the crux: CrossFit is all about being ready for anything in daily life in terms of functional movements. "The idea is for your body to be able to adapt to anything," Ambroise says. And one of the interesting features of CrossFit is that it is infinitely scaleable to older, unconditioned, untrained people. "We can tailor the CrossFit workout for your grandma," says Ambroise with a smile.

According to Maier, a good definition of CrossFit is "a core strength and conditioning program based on constantly varied functional movements executed at high intensity - and the intensity part can be customized based on the individual's age and fitness level."

Essentially, CrossFit is predicated on three main fitness standards, alongside which nutrition also plays an important role:

- 1) The 10 basic skills that make up overall fitness: cardiovascular/respiratory endurance, stamina, strength, flexibility, power, speed, co-ordination, agility, balance and accuracy
- 2) Performing well at every imaginable task
- 3) The three metabolic pathways that provide energy for all human action: the phosphagen pathway dominates the highest-powered activities lasting less than about 10 seconds; the glycolic pathway dominates moderate-powered activities that last up to several minutes, and the oxidative pathway dominates low-powered activities that last in excess of several minutes.

The motivation for these standards is the broadest and most general fitness possible. "The strength of CrossFit is that it doesn't specialize in any one area," Maier says. "A runner concentrates on endurance and stamina and pulls all energy from the oxidative pathway. So because he specializes in only two areas, he will lose - or not develop - capabilities in the other eight areas and he will not benefit from the other energy pathways."

Head trainer at downtown Montreal's Club Mansfield and responsible for initiating the gym's CrossFit program, Roberto Morales says: "CrossFit is a good complement to running because it encourages the full range of functional movement, whereas running is only a partial range. A runner's muscles get limited by repetition - and that is where injury comes into the picture."

Another matter to consider is the effect of running on muscles. "Sure, runners have better fat utilization but an unvaried aerobic exercise leads to loss of muscle mass," Maier says, "so it's not very healthy to only run."

All the CrossFit trainers interviewed were emphatic about anaerobic exercise resulting in improved running times. Tanya Winkel, a CrossFit Regina member who competed in the Ironman Canada competition in Penticton, B.C. in 2006 and 2007, took a year off in 2008 to focus on CrossFit. Supplementing her endurance training with two to three weekly CrossFit workouts, Winkel's time in the 2009 Ironman competition improved by 43 minutes. "CrossFit is great for making my endurance training way more effective, once some of my muscle imbalances were dealt with," she says.

Montreal-based podiatrist and triathlete Glenn Hébert agrees. "It helped me shave time off my 5K - I was doing 28 to 29 minutes and now I'm down to 26." But Hébert believes the benefits touched more than just his running time. "I use my hands a lot in my work, which made me very tired by the end of the day. Now I have more energy and deal better with stress."

But for all its reported benefits, CrossFit has not escaped criticism. Some say the intensity is too high and can cause serious injuries. In 2005, one very public case of rhabdomyolysis, a condition in which the muscles break down and release a toxic substance in the bloodstream that damages the kidneys, followed a CrossFit workout, though the man recovered - and returned to his CrossFit regime. Other bad press suggests that instructor certification is too short (three days), and still others feel that the layperson should not be encouraged to build workouts from simply consulting the CrossFit.com bank of exercise combinations, as a lack of knowledge can also lead to injury.

But Ambrose and Morales disagree. "An instructor is constantly monitoring you to make sure you are undertaking correct movements and not exposing yourself to injury," says Ambrose. And as Morales points out, most instructors have fitness backgrounds and/or formal education that enhance their knowledge of the CrossFit approach. "On top of this, passing certification is not easy. In my class, only seven of 17 were successful. The bar is high." CrossFit is currently seeking accreditation from the American National Standards Institute.

There is also an element of sound judgment involved. "We encourage 'proprioception' or feeling your body in space. That means being aware and understanding your limits - and that is just plain common sense," Ambrose says.

It will be interesting to see, over time, whether CrossFit holds the place it has carved out for itself. But for those who seek high-intensity, all-over body fitness - runners among them - it's likely got more than a foothold.

CrossFitting Basics: The Nine Fundamental Movements

CrossFit promotes nine fundamental movements divided into three categories. A combination of one from each category is used to develop the three-element Workout of the Day or "WOD", as it is known in CrossFit-speak. The individual exercises can be variations of the fundamental movements so that variety becomes infinite. CrossFit also uses rings, kettlebells, medicine balls and boxes, among other elements, to encourage that variety.

- 1) Three squats: air squat, front squat and overhead squat
- 2) Three presses: regular overhead shoulder press, push press (hip motion to bring weight up higher), and push jerk (legs and dropping under the weight to increase co-ordination)
- 3) Three deadlifts: regular deadlift, sumo deadlift high pull (pull up to chin level), and medicine ball clean (bring ball to shoulder level)

WOD's up

A runner's CrossFit experience

As part of the research for this feature, I did an initial CrossFit "WOD" (Workout of the Day) with Roberto Morales, the head trainer at Club Mansfield in downtown Montreal. Morales was an instructor at the first CrossFit gym in this city before becoming head trainer at Mansfield, where he has initiated a CrossFit program.

Like all CrossFit workouts, mine consisted of three very different components: rowing, overhead shoulder presses and squats. This sequence was in keeping with the CrossFit philosophy of using every muscle in the body in high intensity to enhance functional movement - while at the

same time pushing cardiovascular capacity.

The workout can be anywhere from 15 to 45 minutes - and in my case, we spent the first 20 making sure that I was capable, in terms of form and technique, of undertaking each exercise in the workout. Morales knew that I am a 5K runner who mixes a running program with weekly weight training and he built my WOD according to what he presumed my fitness level to be.

Once he determined that I could execute shoulder raises and squats correctly without compromising my back in any way, he made sure I had proper posture while in action at the rowing machine. Morales had me warm up on the rowing machine first for 1000m, and then the workout began: maximum rounds in 15 minutes of 300m of rowing, 15 air squats (no bar, no weight) and 10 overhead shoulder presses with a 25-pound bar.

Morales told me afterwards that he designed the workout so that I would get through it twice in the 15 allotted minutes. In the end, I got through it 2.5 times, which pleased me, given that I was a neophyte. But after 15 minutes, I was dripping sweat in a way that never happens during a run or weight-training session, and was completely exhausted, physically and mentally. I suspect the mental exhaustion came from my singular focus on beating the clock and getting through the workout as many times as possible. I was competing against my own perceived power - and that in itself raised the bar significantly.

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