THE

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January 2010

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How to Succeed as a CrossFit Affiliate

Understand what an affiliate is and is not, then pursue excellence in every way.

By Jeremy Thiel CrossFit Central **January 2010**

Courtesy of CrossFit Central

Your affiliate is your business. It is not a cookie-cutter replica of someone else's gym. No one is telling you how to operate, how to program and how to look. That's both a huge opportunity and a huge burden. Your success is up to you.

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This kind of challenge fires me up. I decide how well I do. I'm ambitious, and the freedom that CrossFit HQ gives all of us puts no limit on how well I can do. The relationship between HQ and the affiliates is not a hierarchal structure like you might see in other businesses. We are free to communicate across the lines to anyone who will freely and openly communicate with us.

CrossFit HQ doesn't tell me how to run my business, and to that I say, "Hell, yes!" The annual affiliate fee puts us in a low-tax environment. That's right: low tax. Do you know what franchises pay monthly? And, the more successful I get, the smaller the fee is as a percentage of my revenue.

I have the opportunity to do what I love in a free and open market. If you're an affiliate asking for regulation, get over it. Go sign up for a franchise where you will experience both the hierarchy and the heavy tax burden. That's not what the CrossFit affiliate program is about.

Our customers determine our success. Not other affiliates, and certainly not HQ. I have no fear about what any other current or future affiliates do because they can't affect the two things that make our business strong: the relationships my trainers and I have with our clients and the results our clients get from training with us.

The CrossFit Mind Pyramid

I have a concept of the type of thinking that makes a trainer successful. I call it the CrossFit Mind. It is a pyramid with four main sections: a base of humility and service, twin pillars of attitude and professionalism, and a pinnacle of excellence. I guarantee that if you have these characteristics as the foundation of your training, you will be as successful as you want to be.

The Foundation—Humility and Service

The foundation of this business is humility and service. It is the vision of the community. When Carey Kepler and I went to our Level 1 Cert in 2004, I saw the most amazing group of individuals. I looked at my sister and said, "These are my people!" They were the most humble people I'd ever met. Greg and Lauren Glassman didn't know who we were, yet they welcomed us and truly cared about me as an individual and my success.

As an affiliate owner, it is your responsibility to truly care about your clients and their success. No one can teach you how to care, but if you do, your clients will know and they will be loyal. But you must be there for them and for their success.

Courtesy of CrossFit Central

Jeremy Thiel has seen West Coast CrossFit culture thrive in Austin, Texas, and he believes a balance between attitude and professionalism is key to promoting your version of the CrossFit brand.

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The Body—Culture and Your Brand

On the left side of the pyramid, you've got one extreme: intense and hardcore CrossFit. This side is for the kill-your-mother, hardcore, tattooed, skulls-and-guns, I'm-gonna-murder-you, intense CrossFit people who never turn down the Rage Against the Machine or Metallica. This is CrossFit, and I'm a part of it.

This intensity is why I do CrossFit, but it's only one side of the pyramid and only half your brand. Still, it's an important half. Intensity is what gets results. If you're too soft, your clients won't get the results they deserve.

The opposite side of the pyramid is professionalism. If you want to be successful, you have to operate like a professional business. This means having a professional brand, logo and structure in your box, as well as legit systems, including new-client programs and/or on-ramp programs. It also means showing up on time, being prepared and being at your best when you're with clients.

These two sides of the pyramid represent two extremes, and as a CrossFit affiliate you have to strike a balance between the two. You need the feel of CrossFit—the culture and the attitude—but at the same time your business should appeal to everyone. It should offer stability, accountability and high-quality, world-class training. Create organization and structure within your business model but keep the look, feel and culture of a garage gym.

The CrossFit Mullet: Business in the Front, Party in the Back

You can create balance between attitude and professionalism. At CrossFit Central, our gym looks and feels like CrossFit. We've got roll-up garage doors and a really minimalistic garage-gym feel. In the front part of the building where clients walk in is a check-in desk and retail area. The front lobby looks and feels very professional. This is where clients fill out their waivers, where we have nutrition meetings, and where benchmark scores and body assessments are kept. When you walk out into the gym you're going to get the CrossFit experience. It's a lot like a mullet: business in the front, party in the back.

Our trainers at CrossFit Central are CrossFit and truly represent the brand. The culture of the CrossFit brand is the West Coast garage gym, and now in Texas you see guys CrossFitting in board shorts. Think about that: we wear board shorts in Texas ... where there are no beaches. The whole reason people who live in California CrossFit in board shorts is because they're going to the beach or they just came from the beach. Nobody is going to the beach in Texas, but we still wear board shorts. Why? Because it's a part of the brand. It's part of our culture, and we maintain that brand in our box.

The CrossFit Mind: The pursuit of excellence will unite your community and bring success to you and your clients.

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The Pinnacle—Excellence

The pinnacle of this pyramid is excellence. What holds all these pieces together is the pursuit of excellence. It's what you should be striving for as an individual and as a business owner. I continuously analyze all components of our training and business and poke holes in it to see where we need to improve and how we can offer a better product.

At CrossFit Central, our coaches define and model excellence. As a company, everyone works to develop themselves in each of the Five Pillars of Excellence:

1. Knowledge of Movements
2. Character
3. Professionalism
4. Living the Code
5. Servant Heart/Compassion

To pursue excellence, you need to support yourself with each of these pillars. If you are a coach who knows everything about movements and technique but is unprofessional, you will not have long-term success. If you are a coach who is a really great person and cares a lot about clients but is lacking in knowledge of movements, you will not have long-term success. You have to strive to be well rounded by developing each of these pillars.

Ultimately, the standard of excellence is set by the marketplace. Your clients make up the marketplace. Just because you have an affiliate doesn't mean you have excellence. The easiest way to gauge whether or not you are pursuing excellence is to look at the measurable output of your business: results, success stories, client retention and growth. Analyze these numbers, data and benchmarks, and you can quickly find out how you fare in the marketplace.

Courtesy of CrossFit Central

The character of your box is up to you, and if you cultivate the right culture you'll create a family atmosphere based on the pursuit of health and fitness.

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The Future of the Affiliate Community

CrossFit's prescription is constantly varied functional movement at high intensity. Learn all you can about as many different functional movements as you can. Experiment with what works and produce the fittest clientele you can. Open, honest and creative debate about fitness ideas will drive our community forward. Emotions and egos only get in the way.

Every time you talk trash about an affiliate, you're contributing to the deterioration of the brand. You're helping to lower and degrade the excellent status of the community. Egos destroy communities. They rip them apart from the inside. If we leave our egos at the door and let the experts share their information, we will continue to progress.

Create a brand that fits the CrossFit Mind Pyramid, distinguish yourself and, above all, pursue excellence daily.

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About the Author

Jeremy Thiel is the co-owner of CrossFit Central in Austin, Texas, and has competed in all three CrossFit Games, finishing third in 2008. Carey Kepler, his sister and the co-owner of CrossFit Central, finished third in the 2009 CrossFit Games. The team from CrossFit Central finished second in the 2009 Affiliate Cup.

Courtesy of CrossFit Central

Bickering and trash talking serve no purpose in the global CrossFit community. What matters is moving forward together in pursuit of one goal: excellence.

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The Truth About Rhabdo

Rhabdomyolysis is only occasionally seen in athletes. Dr. Mike Ray explains why, how the condition is treated and how smart trainers minimize the risk for their athletes.

By Dr. Michael Ray CrossFit Flagstaff **January 2010**

Susannah Dy/CrossFit Journal

When marathons, hiking and long-distance running became popular, Dr. Ray saw an increase in cases of rhabdo. Still, it is far more common in patients who have experienced crushing injuries or electrocution.

Rhabdomyolysis is a medical condition that may arise when muscle tissue breaks down and the contents of muscle cells are released into the bloodstream. One molecule in particular, myoglobin, is toxic to the kidneys and can cause kidney failure and, in the most severe cases, death.

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Rhabdo has been seen after high-intensity exercise. It is well known to emergency department physicians who see it in victims of crushing injuries and electrocutions. It can also occur in those with severe bee-sting allergies and massive infections, and occasionally it is seen in athletes, particularly those who have become dehydrated after prolonged exertion in high heat. I work in northern Arizona and see it most commonly in people who have been hiking in the Grand Canyon.

Symptoms and Treatments

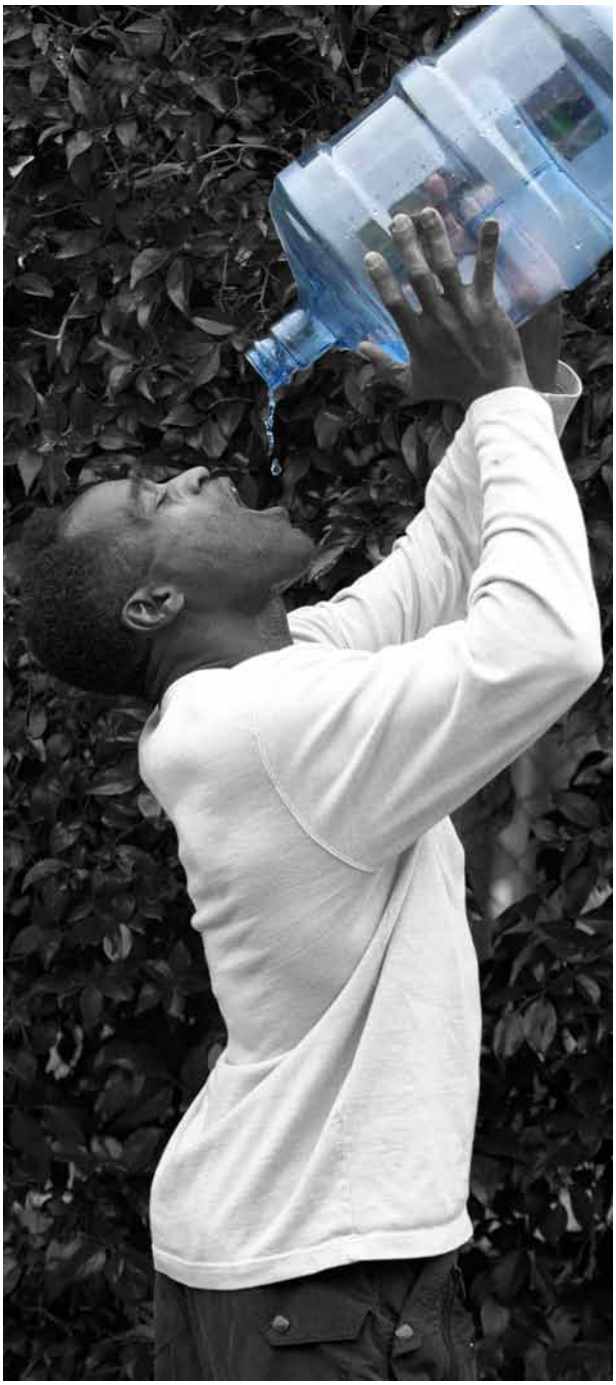
Symptoms of rhabdo include severe generalized muscle pain, nausea and vomiting, abdominal cramping, and, in significant cases, dark red "Coca-Cola" urine. The color of the urine is from the myoglobin, which is the same molecule that gives red meat its color.

Rhabdo is diagnosed when a patient with an appropriate history has an elevated level of another molecule, creatine kinase, also known as CK or CPK. CPK is easier to measure in the blood than myoglobin and is generally used as a marker for rhabdo, even though it's the myoglobin that does the damage.

> In real terms, the risk of serious rhabdo is genuine, but it is low.

Treatment consists of generous amounts of intravenous fluids to dilute and flush the myoglobin through the kidneys. In the worst cases, patients may need dialysis while the kidneys recover. Death, though rare, can result when the kidney failure causes imbalances in the usual electrolytes, which may cause cardiac arrhythmias. Most patients make a complete recovery after being rehydrated with IV fluids over anywhere from several hours to a week or so, depending on the severity.

Compartment syndrome is occasionally seen in combination with rhabdo. Compartment syndrome results when an area of soft tissue that is encased in non-expansible connective tissue experiences so much swelling that the pressures exceed the pressure



Susannah Dy/CrossFit Journal

Dr. Ray recommends drinking water after a workout to flush myoglobin out of the kidneys. It's important to consume food as well to prevent hyponatremia, which can occur when you wash all the sodium out of your system.

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Staff/CrossFit Journal

CrossFitting doctor Ahmik Jones wrote that most clients will never get rhabdo even if you do everything wrong. Still, it can happen to any athlete in any sport, but the benefits of high-intensity workouts far outweigh the risks, which can be minimized with careful training.

> There is no way to separate the effectiveness of the training from all risk. A completely safe training program is doomed to produce only couch potatoes. The safety of strength and conditioning programs across the board, including CrossFit, is very good ... .

of blood circulating in the small capillaries within the compartment. The resulting ischemia kills the involved soft tissue. When this soft tissue is muscle, myoglobin may again be released into the blood.

Compartment syndrome most commonly occurs in muscle compartments of the extremities and may result from intense exercise, though is more frequently associated with crush injuries or long-bone fractures.

With CrossFit, we perform whole-body functional movements because those are the movements we need in sport, in life, in battle. We execute those movements at high intensity because that intensity produces all the positive adaptations found with CrossFit and maximizes our work capacity across broad time and modal domains. It seems reasonable that exercising a large muscle mass at high intensity might cause some breakdown of muscle cells, releasing myoglobin and CPK.

This seems to happen at dangerous levels only rarely, though in the emergency department when I see patients who have just exercised (running, working out on machines at the Globo Gym, hiking, CrossFit, etc.) I routinely see mildly elevated levels of CPK (when I have reason to check it). Only rarely do they have dangerously high levels or do they experience any ill effect. Generally, these patients are in the emergency department for completely unrelated reasons. We think there may be an adaptive effect to regular high-intensity exercise that allows the body to somehow protect itself from rhabdo in a manner similar to how a person will become acclimatized to altitude upon regular exposure.

Reducing the Risk

Strategies to reduce the risk of rhabdo include a gradual introduction to intensity. The athletes at highest risk seem to be those with a reasonable baseline level of fitness they have obtained through some non-CrossFit training, or those who are returning to CrossFit after a layoff. These athletes have sufficient muscle mass and conditioning to go hard enough to hurt themselves but do not have the protection that develops with regular exposure to real intensity.

The severely deconditioned don't seem to have enough muscle mass or the capacity to break down enough muscle to do damage. Established CrossFitters seem to be protected, though the mechanism remains unclear.

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Certain practices seem more associated with the risk of rhabdo. We are particularly cautious about "negatives," where the athlete intentionally prolongs the eccentric phase of a movement. We are also cautious about reducing the weight on a "new" or deconditioned athlete in order to maintain intensity. In general, it is better to allow them to stop and take the rest needed to complete the workout. We encourage athletes to eat and drink plenty of water after a workout. The water is to flush myoglobin through the kidneys; the food is to prevent hyponatremia, which results from flushing all the sodium out of one's system by drinking too much water without any salt.

The irony of rhabdo is that after marathons and hiking became so popular, we started to see people come in to the ER with rhabdo. We told them to drink lots of water to prevent rhabdo. Now I see more patients from the Grand Canyon with hyponatremia than I do with rhabdo, and the only deaths I have seen were from hyponatremia.

Ahmik Jones, another CrossFitting doctor, wrote some great advice for rhabdo prevention on the CrossFit Message Board in a thread titled Top 10 Ways to Avoid Giving a Client Rhabdo.

In real terms, the risk of serious rhabdo is genuine, but it is low. As Ahmik mentions in his post, even if you do everything wrong, most of your clients will never get rhabdo. Conversely, even if you do everything right, there is still a risk of rhabdo, however small.

There is no way to separate the effectiveness of the training from all risk. A completely safe training program is doomed to produce only couch potatoes. The safety of strength and conditioning programs across the board, including CrossFit, is very good, especially when compared to sports like basketball, football and soccer.

Every case of an injured athlete is unfortunate. But we believe it's no more unfortunate than the people who hurt their backs because they never learned how to pick up something heavy or the patient who dies because the firefighters carrying her out of the woods don't have the heart and lungs to make it in one hour instead of two.

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Staff/CrossFit Journal

About the Author

Dr. Mike Ray is the co-owner of CrossFit Flagstaff. He enjoys everything from adventure racing to rock climbing, martial arts, trail running and beyond. He is married to Lisa Ray, who finished 44th in the 2009 CrossFit Games and is a member of CrossFit HQ's traveling certification staff.

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CrossFit HQ
2851 Research Park Dr., Santa Cruz, Calif.

In Part 1 of this series, original firebreather Greg Amundson recalls the very first days of a movement that's now a global phenomenon.

By Greg Amundson CrossFit Firebreather **January 2010**

Staff/CrossFit Journal

The original CrossFit gym was located on a street called Research Park Drive—and I can't think of a more fitting name for the location of the first box. A real-life research project on the potential of the human athlete needed a location with just such a name.

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The Birth of the Movement

Over the years, many people have asked me about the early days of training at the original CrossFit Headquarters in Santa Cruz, Calif.

"What was it like to be coached by Greg and Lauren Glassman?"

"What were the group classes like?"

"What has changed over the years?"

"What were the early CrossFit Certifications like?"

"What was it like to train with Eva, Annie, Nicole and the other star athletes?"

When CrossFit classes were still being run out of the original gym, my answer would simply be, "Come check it out for yourself!" And over the course of the many exciting years I was part of the Headquarters gym, countless numbers of athletes made the pilgrimage to Santa Cruz to experience the magic first-hand.

As the CrossFit culture in Santa Cruz grew, many of the athletes from the original gym expressed a desire to open their own CrossFit boxes. At first I resisted the split of the core CrossFit Headquarters team of trainers and athletes. I feared that with expansion would come separation and a loss of the camaraderie and community that made the gym such a wonderful place. Nevertheless, several trainers did leave Headquarters to open affiliate CrossFit gyms on the outskirts of Santa Cruz County. In retrospect, I am glad they had the vision to start something new. Today, there are five thriving CrossFit gyms in the beach communities of Santa Cruz, each a unique and wonderful expression of the affiliate owners and the athletes training there.

And the original CrossFit gym? The doors were closed over two years ago. However, the energy and momentum created by "the little gym that could" is evident in the nearly 2,000 CrossFit affiliate gyms around the world. In addition, the spirit of the gym is alive and well in the athletes and trainers who were blessed with the opportunity to experience first-hand the grassroots fitness revolution destined to change the world.

Staff/*CrossFit Journal*

Two-time Olympian Eva Twardokens was one of the very first CrossFit stars. Twardokens competed in the legendary Nasty Girls video against fellow firebreathers Nicole Carroll and Annie Sakamoto.

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Staff/CrossFit Journal

Greg Amundson quickly learned that CrossFit offered a new kind of fitness, and he was instantly hooked.

The Introduction

In December 2001, I heard rumors of athletic monsters being created inside a small gym on the east side of Santa Cruz and was intrigued. My good friend Sam Radetsky had found the number for "CrossFit" listed in the Santa Cruz County Yellow Pages and encouraged me to call. After a few rings a now-familiar voice answered, "Hello!" In the background I heard grunting, cheering and the sound of heavy objects slamming against what I hoped was the ground and not any other immovable object.

I introduced myself and asked if I could visit the gym to check things out. None other than Greg Glassman answered, "Sure, show up tomorrow morning at 6 a.m. and be ready to work out."

I had recently graduated from the University of California at Santa Cruz, where I competed in NCAA water polo. Following college graduation, I had been hired as a recruit deputy by the Santa Cruz County Sheriff's Office and was fresh out of the South Bay Regional Police Academy. My fitness training up to that point had mainly been aquatic based with a combination of dry-land gymnastics movements such as pull-ups and dips.

Free weights were available at the university gym, and I occasionally performed the bench press and back squat. The Police Academy, on the other hand, had focused on long, slow distance running and various defensive-tactics drills. I was young and competitive and thought I was physically fit. I was about to discover just how little I knew.

The following morning at about 5:45 a.m., I pulled into the small six-car parking lot in front of CrossFit Santa Cruz. I had been in and out of fitness gyms my entire life, and something didn't feel right. I was staring at a 12-foot-tall garage door whose small glass window was already fogged over from the inside with moisture and perspiration despite the cold ocean air. I knocked before entering the small garage and then stepped inside the black-matted room. With a huge smile on his face, Greg Glassman walked across the floor and reached out his hand.

"Glad you made it! You can call me Coach," he said. Seated on what looked like two wooden beams (I would later learn this was a set of gymnastics parallel bars) was the fiercest looking man I had ever seen.

"Greg, meet Mike Weaver, a Jiu-Jitsu wizard and CrossFit stud. I'm going to have you two work out together," Coach said.

I had never heard of a Jiu-Jitsu wizard, but I was certain I did not want Mike to show me what it was.

Coach introduced me to the concept of the upcoming workout. It consisted of a 1,000-meter row on a Concept2 rower, which Coach claimed was the best piece of "cardio" equipment in the world. Following the row, I would complete 21 kettlebell swings and 12 pull-ups. If I felt up to it, I could repeat the workout after a brief rest. In the back of my mind, I thought, "Well, that doesn't seem very hard to me. That should only take a few minutes!"

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The small CrossFit gym in Santa Cruz quickly needed more space as the movement grew into the global phenomenon it is today.

Before the workout started, Coach led me from one station to the next, explaining and demonstrating the points of performance and the expected range of motion for each exercise. While receiving Coach's instruction and practicing the skills, I watched out of the corner of my eye as Mike warmed up with some pull-ups. After carefully observing a few of Mike's repetitions my first thought was, "Man, he is cheating!"

Mike was using his legs and hips in a manner that seemed to accelerate his body and almost float his chin over the bar. I was basing my critique of Mike's technique on the strict California Police Academy rules I had been under as a recruit and a historic belief that the pull-up was a biceps exercise.

After a few repetitions at each station under the watchful eye of Coach, we were ready for the start of the workout. Coach explained to me what Mike already knew: CrossFit workouts were by their design competitive. Mike and I would be racing against each other and against the clock. Coach led Mike and me to the second-story landing of the small but immaculately kept gym, where two Concept2 rowers sat side by side.

Coach said, "You guys will row up here, then carefully walk down the stairs to the remaining two stations."

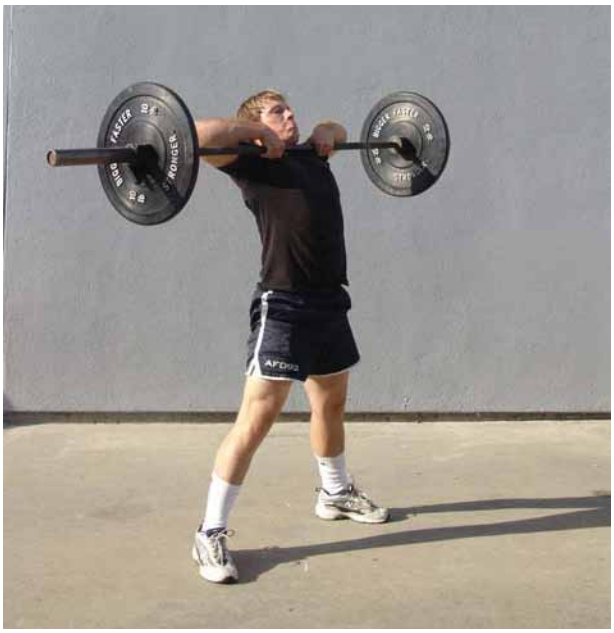
"Walk carefully? I wonder why he said that," I thought to myself.

Coach then said four words that would soon become as distinctive as legendary boxing announcer Michael Buffer's "Let's get ready to rumble!" catchphrase: "3-2-1... Go!" Coach thundered, and I started to pull as hard as I could on the handle of the Concept2 rower.

Three hundred meters into the workout, I knew I had greatly underestimated the impact such a seemingly harmless piece of "cardio" equipment could have on my entire body. After finishing the row, I also understood why Coach had warned us to walk carefully down the stairs. My legs felt like spaghetti and I was forced to support myself on the railing as I walked to my next station.

Coach enthusiastically motivated and supported Mike and me through the swings and onto the pull-up bar. Mike used a skill I would later learn was the "kipping pull-up" to quickly perform 12 consecutive pull-up repetitions. I, on the other hand, still considered this cheating and instead performed three sets of four strict pull-ups.

After the workout—I only completed one round—I stumbled over to the corner of the gym near the stairs and collapsed. Physically I was finished, but internally I was vibrant with the realization I had discovered something sacred. I had found a Coach who would share with me the Holy Grail of fitness: CrossFit.



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David Leys demonstrating the sumo deadlift high pull at CrossFit HQ.

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The Coach

My father was the first person I considered my coach. He was a Navy diver, an L.A. County beach lifeguard, a doctor of chiropractic and a dedicated athlete. My earliest childhood memories involved being coached by my dad in the basics of gymnastics, swimming and weightlifting. Tragically, less than two years before I walked into the door of CrossFit, my dad passed away from cancer. I felt an incredible loss and despair after he died. I also felt a void left by the man who had been my coach, mentor and biggest supporter.

This all changed the moment Coach Glassman extended his hand and welcomed me into the CrossFit family. In an instant, I felt a connection I had missed for so long. After my first workout with Coach, I spent as much time in the gym with him and his wife Lauren as my civilian job as a deputy sheriff would allow.

Coach instilled in me and the other athletes under his guidance a concept known as "virtuosity." According to Coach's definition, this meant "doing the common uncommonly well." Movements I once considered as simple as a squat or push-up suddenly came alive with nuances and beauty. Coach believed there was magic in movements he described as "functional." He taught his athletes these movements had the potential to create human power output that could not be matched by traditional bodybuilding isolation exercises.

Coach was creating a blueprint for the development of world-class athletes that we would see repeated in affiliate CrossFit gyms around the country in a few years. Coach followed a fairly consistent model in the way he approached teaching his group classes. Athletes were expected to warm up on their own by performing repetitions of the foundational CrossFit movements. This usually consisted of various squats, GHD sit-ups and back extensions, pull-ups and push-ups. Coach would then introduce, refine and instruct a compound weightlifting movement to the group. We would spend about half an hour working up to a fairly heavy load, at which point a repetition scheme would be implemented.

In addition to the weightlifting movements, Coach loved to teach gymnastics. Some days, advanced gymnastics skills would be taught and practiced in lieu of the heavy lifts. Then the excitement would really start.

Staff/CrossFit Journal

Sally Stade used CrossFit to achieve new levels of fitness and eventually lost over 60 lb. In 2005 she completed a 15-foot rope climb after three years of hard work and perseverance.

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Coach and Lauren were both fans of prescribing "tight" couplet and triplet workouts that beautifully blended the modalities of weightlifting, gymnastics and sport. The whiteboard was his pre-engagement operations center, and the gym the battlefield. Under Coach's direction, the athletes engaged in epic contests that quickly morphed into today's famous WODs such as Fran and Helen.

Although Coach and Lauren taught many classes during the day, I gravitated toward the 6 a.m. crew. The athletes training in the early morning hours were competitive by nature and students at heart. In addition to physical training, Coach frequently included short lectures, utilizing the whiteboard to depict and explain concepts such as power, fitness and work capacity. It quickly became evident to me that I was learning much more than functional movement. I was being introduced to a new way of life grounded in belief in the unlimited potential for the human athlete.

Staff/CrossFit Journal

Loyd Lewis: one of the few people capable of performing a strict one-arm pull-up.

The Right Place, On Time

When I think back on the early days of CrossFit Santa Cruz, I'm amazed by the amount of talented athletes who were at the right place at the right time. I seriously do not consider it a mere coincidence. It's almost as if a magnet in the universe attracted all of us to Coach and the incredible momentum he was starting inside the east-side garage.

One of the questions most frequently asked of me is, "What was it like to train with star athletes like Annie, Nicole and Eva?"

I could sum it up in one word: Awesome.

Eva Twardokens, affectionately known as "Eva-T," was the first female athlete I met at CrossFit Santa Cruz. She had been training with Coach for several years prior to my arrival. Her capacity inside the gym was like nothing I had ever seen before. She regularly beat the other athletes—both men and women alike—in the CrossFit workouts. Her technique in the Olympic lifts was impeccable. She could bang out sets of 20 pull-ups while holding a conversation with you and climbed the 15-foot rope with no legs. She was, and still is, awesome.

During the spring of 2004, Annie Sakamato and Nicole Carroll burst onto the scene at CrossFit Santa Cruz and never looked back. Annie's capacity was immediately so fierce she was frequently paired against me and other male athletes to keep us in our places. The common good-hearted joke in the gym when visitors doubted the legitimacy of the program was, "Just keep up with Annie. It's easy." Needless to say, I never saw any challengers come even remotely close to beating her in anything.

Nicole Carroll has the heart of a champion and is pound-for-pound the strongest athlete I have every trained with. My favorite song is *Eye of the Tiger*, and I swear it could have been written about her. The most inspiring moment in my life was watching Nicole, Annie and Eva perform the workout Nasty Girls at CrossFit Santa Cruz. In the CrossFit.com video made that day—which has to be seen to be believed—Nicole braves one of CrossFit's most demanding workouts with an indomitable spirit. Her efforts in that workout have been credited with inspiring more CrossFit athletes around the world than any other recorded CrossFit event.

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The class photo from a cert held Oct. 6, 2003.

Although Eva, Annie, Nicole and I were on several of the early CrossFit workout videos, I consider every athlete who was part of the original gym to be a star. The box was blessed with such talent as David Leys and Matt Mast, two athletes who were part of the first published CrossFit DVD for their efforts on the now-famous CrossFit workouts Fran and Diane. In the DVD, David captured the world's first sub-three-minute Fran, while Matt set a world-record sub-four-minute Diane.

Loyd Lewis was the first—and to this day only—person I have seen do a strict one-arm pull-up. Professional rock climber Rob Miller trained at CrossFit Santa Cruz—and then went out and in a few hours climbed peaks unassisted that took other climbers several days. Garth Taylor, CrossFit Santa Cruz's beloved "heavyweight," took his CrossFit training to win several Brazilian Jiu-Jitsu championships, including black belt runner-up in the 2001 World Championship.

And remember Mike Weaver? His CrossFit training earned him a World Cup and U.S. Open Black Belt Brazilian Jiu Jitsu Championship.

However, perhaps it's the less-known stories of the original gym that need to be told. At nearly 70 years old, Mary Conover was the "grandmother" of CrossFit Santa Cruz. Mary first came to Coach Glassman with very little athletic ability. In fact, she was in tears about her lack of functional independence. Mary realized she did not have the strength to pick her grandchildren off the ground. Under Coach's guidance, Mary soon turned herself into the most capable grandmother in the Western Hemisphere. Today, Mary deadlifts close to 100 lb. and competes in workouts right alongside athletes half her age.

Sally Stade is another shining example of the amazing star athletes at the original gym. When she walked into the headquarters gym at 6 a.m. in 2002, I thought she might have been lost. But she knew exactly where she was. At nearly 60 years old, Sally would capture the hearts of all the athletes in the gym with her determination and never-quit attitude. She insisted on remaining in the 6 a.m. class despite the difficulty of the programming and the great age difference with the other athletes.

Over the course of five years, I watched Sally transform from a woman with very little athletic background into a firebreather in her own right. Sally lost over 60 lb. while gaining incredible strength and capacity: Sally split jerked 88 lb. and overhead squatted 78 lb. for several repetitions. In addition, on a glorious morning in 2005, Sally completed her first 15-foot rope climb after three years of constant struggle. When her palm slapped the wooden beam that hung the rope, the entire gym burst into cheers and tears of joy.

Another incredible athlete I had the opportunity to meet and train with was Kris Machnick. A tenacious competitor, Kris instilled courage and perseverance in all the athletes at the gym. For Kris, CrossFit became a fountain of youth. She learned the fundamentals of gymnastics and weightlifting and then took her new-found capacity into the great outdoors, where she skied, climbed and hiked peaks never intended for someone her age. At almost 60 years old, Kris was able to easily perform muscle-ups, rope climbs, multiple pull-ups and ring dips.

Staff/CrossFit Journal

Another class photo, this one from Feb. 19, 2004.

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A CrossFit classic: Eva-T and Nicole Carroll.

Learning to Coach, Learning to Lead

In addition to creating the athletes whose exploits were featured on CrossFit.com, Coach was also creating world-class trainers. He would have it no other way.

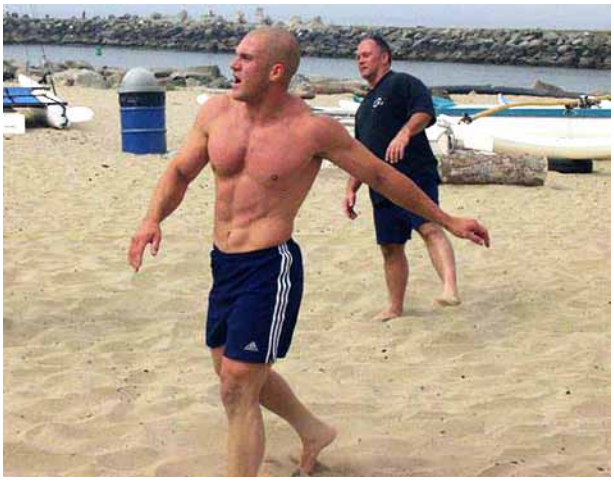
Coach instilled in his athletes a trait that I have not seen repeated in any other professional culture: Coach believed that the moment you learned something, you had the responsibility to teach it to others.

Coach insisted the best way to learn anything was to teach it to someone else. In this respect, Coach required his athletes to participate in teaching group and private classes at CrossFit Santa Cruz. Under the guidance of Coach and the more senior athletes, everyone at CrossFit Santa Cruz learned the intricacies of the foundational movements, with the expectation they would teach the skills to others. Coach had a mantra when athletes left the gym, and it has now evolved into a piece of famous post-certification advice: "When you get home, grab a broomstick, knock on your neighbor's door and teach them how to deadlift." At the original CrossFit gym, everyone had something to teach, and we were all hungry to learn.

Garth Taylor taught me how to do kipping pull-ups and was my first Jiu-Jitsu instructor. Eva-T taught me how to perform the snatch. Annie taught me the "frog" method of climbing the rope, and Nicole helped develop my overhead squat. Jim Baker taught me a progression for the muscle-up that I, in turn, teach at CrossFit Certifications. Brandon Gilliam and Jason (J-Dog) Highbarger taught me advanced concepts of programming. Tony Budding worked tirelessly on my split jerk, while Matt Mast taught sprinting progressions and David Leys schooled me on mental toughness.

And the master of it all, Greg Glassman, taught everyone the most important lesson: We were much more than athletes and trainers. We were being forged into the young ambassadors of CrossFit.

✦



Staff/CrossFit Journal

About the Author

Greg Amundson is described by his peers as the original CrossFit firebreather. He is the owner of numerous early WOD records and the object of deep respect from CrossFitters worldwide.

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THE CrossFit JOURNAL

Judgement as a Virtue

Assessing Experts with Skepticism and Reason

By Russell Berger CrossFit Huntsville **January 2010**

Susannah Dy/CrossFit Journal

The CrossFit "Thinker" demands measurable, observable and repeatable results.

CrossFit is an open-source fitness program, meaning the internal workings of our program are exposed for everyone to see, experiment with and change as desired. This gives our methodology a unique advantage: when someone discovers a better method for improving fitness, we can adopt it into the CrossFit program.

Just what qualifies as a "better method," however, is open to debate.

Let the Debate Begin

While many historically common fitness questions have been sufficiently answered by CrossFit—yes, below-parallel squats are safe—today's most common questions come from within our community as experts and coaches suggest the next evolutionary steps for CrossFit.

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Does CrossFit need more strength workouts and fewer long runs—or vice versa?

Does the Zone Diet really work better than the Paleo Diet, or is there really no need for measuring of any kind?

Is a lack of affiliate regulation damaging the community, or are the efficient workings of the open market sufficient to eliminate bad apples?

These are just a few examples of simple questions that have turned into serious debates, with many folks claiming to be authorities and experts. So how does the average CrossFitter know what, and whom, to believe?

CrossFit's scientific approach to fitness means that claims must be measurable, observable and repeatable. This is central to the evolution of our fitness efforts. It's also essential to performing evaluations of criticisms and critiques (of CrossFit or any other method, for that matter).

Regardless of credentials or experience, each of us has the ability to make reasonable judgments on the ideas that shape our community. With a little reasoning and exposure to the principles of sound logic and evidence, anyone can assess the strength of a claim or argument. Intellectual rigor and a degree of honesty are all you require to differentiate between claims based in reason and those based in ego and emotional attachment.

Types of Criticism

To start, all claims are a form of criticism, and criticism can come in many flavors. In a perfect world, the only type of criticism we would offer as CrossFitters would be both constructive and measurable, meaning the delivery was reasonable and the claim could be tested. Obviously, things don't always work out this way, but taking the time to analyze the type of criticism you are dealing with can make your assessment much more valuable.

Types of criticism

Constructive and measurable:
"Programming 20 percent more strength-focused workouts into CrossFit training will produce fitter athletes."

Constructive and immeasurable:
"CrossFit should focus more on strength training because conditioning is really just about pushing through it mentally."

Destructive and measurable:
"CrossFit programming sucks for improving your max shoulder press."

Destructive and Immeasurable:
"Weaker affiliates are scaring away potential clients and damaging the CrossFit brand."

Staff/CrossFit Journal

CrossFit strives to be measurable, observable and repeatable, which is why the stopwatch is such a critical part of the program.

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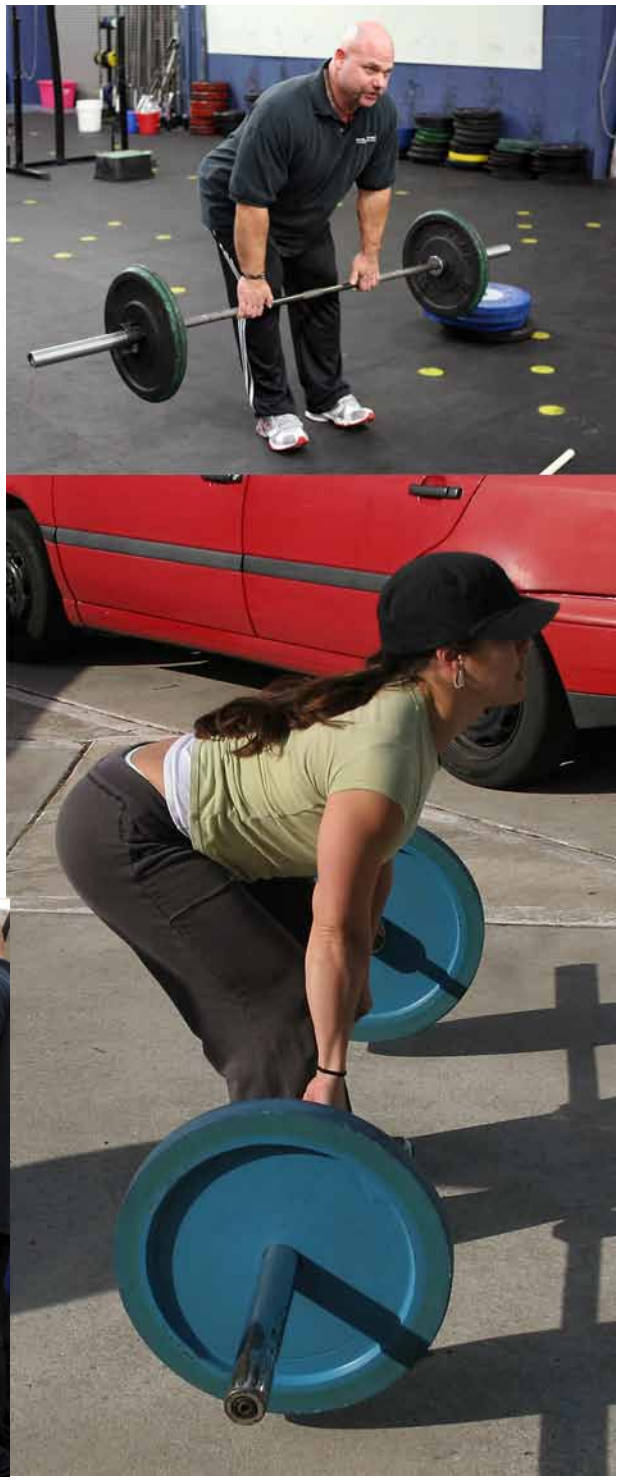
Measurability is clearly the most important aspect of analyzing a claim. If you can't measure something, believing in it is pretty much a matter of faith, and you have no way to validate the accuracy of that claim. Nothing is wrong with having immeasurable opinions—I've got a few of my own—but if you're trying to establish the boundaries of a scientifically based fitness methodology, you're going to need something a little more concrete than an opinion.

The delivery of a claim also comes in two forms: constructive and destructive. If a claim contains a generally positive or productive message, it's a form of constructive criticism. A claim that relies on a negative assumption or insult or is intentionally polarizing is categorized as destructive. This doesn't mean you must be politically correct or sugar-coat the message. It means a difference exists between trying to make something better and trying to make something look worse.

If you're mumbling something about how the delivery of a claim clearly doesn't determine its accuracy, you're absolutely right. Being aware of destructive criticism, however, can act as a warning sign for something more sinister. Destructive claims often reveal a lack of reason and an origin in the nasty, intangible world of ego and emotion. Some claims, of course, should be attacked wholeheartedly (Hitler's position on the Jews comes to mind), but CrossFit's position is not one of them.



Staff/CrossFit Journal

You can perform the deadlift in a number of different ways. Is one style better than the other? Perhaps, but perhaps not. What really matters is that people are deadlifting.

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The goal of CrossFit Inc. and CrossFit.com is to promote the improvement of fitness for all who seek it. We offer an abundance of free resources, and the program is generally very effective. We have indisputably done more good than harm. That doesn't mean there is no room for critique of the program or any of its proponents, but on the spectrum of possible endeavors, improving fitness is a fairly benign, if not noble, pursuit.

Furthermore, we openly invite discussion and debate. We challenge all to demonstrate better results and promise to reward those who can do so in a measurable, observable and repeatable manner. CrossFit is not an environment that requires yelling to be heard. Therefore, it's quite telling when an argument launches with a broad-based attack or a warning of impending doom. While plenty of bad ideas have come with the best of intentions, the opposite is rarely true.

Evaluating a Claim

While it's politically correct to value everyone's right to an opinion, the truth is that not all ideas are equally valid. Evaluating the strength of a claim is essential to knowing if you should buy what's being sold. Let's look at two claims from our list above:

1. "Programming 20 percent more strength-focused workouts into CrossFit training will produce fitter athletes."
2. "Weaker affiliates are scaring away potential clients and damaging the CrossFit brand."

Staff/CrossFit Journal

Louie Simmons teaches an ultra-wide squat stance at Westside Barbell, while CrossFitters generally use a narrower stance. Both have produced great athletes, so is either one "wrong"?

Step 1: Define Terms

Confirm the definition of all the terms being used. Without clear definitions, you are likely to be comparing apples and oranges. Example No. 1 was presented as constructive and measurable. The idea appears simple—a greater focus on strength training will produce fitter athletes. It's a claim that's certainly being made these days, but there is an important gap in the statement.

The first part about programming 20 percent more strength-focused workouts is fine. The problem is that we can't accurately evaluate it until we have a measurable definition for "fitness." CrossFit has provided one, but it's fairly complex and certainly hard to measure. Anyone who does not address this inherent complexity has a weaker stance than one who does.

> CrossFit's scientific approach to fitness means that claims must be measurable, observable and repeatable. This is central to the evolution of our fitness efforts.

Example No. 2, on the other hand, uses ambiguous and vague language—warning signs that the author doesn't have more measurable definitions available.

What characteristics must an affiliate have in order to be considered "weak"? What constitutes the CrossFit brand being "damaged"?

If you are lucky, the author will have taken the time to define these terms, but it's not likely. Even in the presence of a definition, how would you measure "damage" to a brand? The deconstructive delivery of this claim, paired with its lack of measurability, makes it look more like an emotional reaction than a reasonable assessment of facts.

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Step 2: Define the Relevance

It's easy to get overwhelmed by details when discussing issues of controversy: evidence for and against a claim, why that evidence is or isn't being interpreted correctly, and how terms should be defined. Fortunately, one simple question can often prevent you from getting bogged down in the details of an unnecessary debate: "Does it really matter?"

In this case, asking that question really raises a few others: Does the claim address an actual or imaginary deficit? Does the outcome of the claim affect a CrossFit trainer's ability to improve fitness? Is there any evidence of the claim's actual manifestation?

makes sense to experiment with ideas and different approaches. But the debate should be kept in context.

While our second example above (weaker affiliates) probably didn't stand up very well in defining its terms—and it clearly isn't measurable—it could still be important. After all, anyone who cares about CrossFit would care about damaging the CrossFit brand. And, in fact, this is where the claim gets its strength.

But is the claim really relevant? Is there any real evidence that weaker affiliates have a negative effect on other affiliates? I have never seen any.

It's easy to get overwhelmed by details when discussing issues of controversy. ... Fortunately, one simple question can often prevent you from getting bogged down in the details of an unnecessary debate: "Does it really matter?"

The quintessential example of a debate that has been taken way out of context and overwhelmed by minutia is the disagreement over where the scapula should lie in relationship to the barbell during the set-up for a deadlift. Some experts argue that the hips should be high, bringing the shoulder over the bar, while others find that a lower hip position seems to be more effective.

Does it really matter? What's the role of this discussion in the big picture: achieving fitness or delivering it to others? It's mostly irrelevant. To quote Coach Greg Glassman, "One percent of the world deadlifts and we're arguing if the shoulders should go over the bar?" Coach's point, of course, is that the act of doing and teaching the movement matters far more than the exact details of its execution. For trainers and elite athletes, it certainly

Mike Warkentin/CrossFit Journal

Fitness is hard to define. CrossFit chooses to define it as performing more work in less time because force, distance and time are easily measurable.

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Step 3: Assess the Evidence

The burden of proof lies on he who makes the claim. In other words, if you have a better method, it's up to you to prove it. If you say something is dangerous, demonstrate it with real numbers. Failing to provide evidence of your claim is the equivalent of having no evidence at all.

So what makes for good evidence? As we've already said, good evidence needs to be measurable, observable and repeatable. In other words, it needs to provide results consistently, but the evidence you have is sometimes less important than the evidence you don't have. Good science is the process of removing all nonviable options until only one explanation is left. Simply looking for evidence that supports your theory will leave you aware of everything that validates your theory and completely ignorant or dismissive of evidence that might prove you wrong.

> One of the aims of CrossFit is to improve the quality of discussion about fitness and its various components. To do so, we must recognize the role of intellectual rigor in navigating these complex waters.

Establishing solid evidence for any claim within the realm of fitness is actually very challenging. So many factors are involved in fitness and health that it's difficult to assess which one causes what. Good arguments recognize this inherent difficulty and accommodate it. Oversimplification of cause and effect is often an indication of weak evidence.

For example, everyone has slightly different strengths and weaknesses, so the same workout is going to work one person's strength and another's weakness. As we all know, the impact of training your weaknesses is very different than the impact of training your strengths. How do you incorporate that into any claims you might make about the general efficacy of the workout?

The other problem is that while we can measure the effect of someone's workouts (seeing the gains and/or losses over time), we can't say with any degree of accuracy what would have happened had they done a different program in that same period. In other words, we can provide evidence that a program works, but we have to be careful about how we establish that it works better than another program. There are several legitimate ways to do this, but they tend to involve larger numbers of people over a longer period of time.

The CrossFit Games are very useful when it comes to establishing the best programs for the highest levels of fitness. CrossFit claims that the winners of the Games are the world's fittest men and women. Each athlete is a unique case, but any consistency among the top competitors is pretty compelling evidence about the efficacy of that approach. In contrast, if none of the top competitors are following a particular program, that's a pretty strong statement.

Now, there is an alternate explanation. Perhaps the CrossFit Games are not a true test of the world's fittest. This is certainly within the realm of possibilities, but anyone who claims to have superior programming but doesn't perform well at the Games must provide an alternate venue to establish dominance. CrossFitters can then accept the alternate venue and compete in it or dismiss it as inferior (with evidence of course!).

Staff/CrossFit Journal

The debate about the safety of the below-parallel squat is over for the most part, but a host of other discussions have taken its place.

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Separating Emotion and Ideas

So where do good ideas go bad? When emotions blur the line between good and bad science, it can create ripples of confusion across our community.

The marriage that occurs between people and their ideas isn't a bad thing. In fact, it's clearly part of being human. I would be fooling myself if I said I didn't have an emotional attachment to the idea of CrossFit. The trick is being able to identify emotional attachments and prevent them from having a blinding effect on judgment. Unfortunately, not everyone is capable of making the distinction, or perhaps it's better said that many don't practice making the distinction.

Emotion and consensus have nothing to do with science. Something is true or effective or it's not. It doesn't matter if anyone likes the idea or hates the idea or even if people agree about its validity.

A difference also exists between a claim's validity and one's ability to prove it. The absence of evidence doesn't necessarily mean a claim is false, nor does the presence of evidence necessarily prove it's true.

> The burden of proof lies on he who makes the claim. In other words, if you have a better method, it's up to you to prove it.

There is no easy answer, nor any formula to resolve all debates. One of the aims of CrossFit is to improve the quality of discussion about fitness and its various components. To do so, we must recognize the role of intellectual rigor in navigating these complex waters. Passion oozing out of a foundation of evidence-based reason has produced many of science's greatest gains; emotional outbursts that eclipse reason, none.

The Future of Debate

There is little doubt that the CrossFit program has improved the quality of fitness in the world. There is also little doubt that the program can and will be better in the years to come. Creative disagreement, a commitment to evidence-based argumentation, and a perspective focused by keeping the main goal in mind will both strengthen the community in the present and produce the environment in which it will improve and thrive in the future.

✦

About the Author

Raised in Atlanta, Russell Berger spent four years in 1st Ranger Battalion and saw numerous combat deployments. After starting CrossFit in 2004, he left the military, moved to Alabama and opened CrossFit Huntsville.

He currently splits his time between running his gym, training for the CrossFit Games (he won the 2009 Dirty South Regional Qualifier), writing for CrossFit, and spending time with his family.

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Learning How to Do Full Snatches

Bill Starr breaks down one of the most difficult athletic movements you'll ever perform. Put the pieces together to master the world's fastest lift.

By Bill Starr **January 2010**

Staff/CrossFit Journal

The full snatch is one of the most complicated movements in all of sports. An athlete has to pull a weight upward with force and speed, then completely reverse his mental keys to explode downward under the still-moving bar. His foot placement, body positioning and lockout have to be precise when he hits the bottom or the bar will crash to the floor.

The snatch is the ultimate in athleticism, and the pole vault is the only other movement that's comparable in terms of concentration and difficulty. In that event, the athlete has to run at full speed and then direct that speed vertically. In the snatch, the conversion is from moving upward bearing a heavy load to moving downward—a more severe shift. To be able to perform a snatch with a maximum poundage is a feat of strength without peer.

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Snatch Your Way to Sporting Success

By definition, a snatch is an exercise where the bar is pulled from the floor to a locked-arms position in one continuous move. The bar does not stop on the way up, and there is no pressing out at the finish. The power snatch is one form of the lift, but the full snatch is used to handle much more weight. In the full snatch, the bar is pulled just high enough to allow the athlete to squat under it and lock it out. If the athlete is quick enough, he need only pull the bar chest high before slipping under it for a successful lift. The split style can also be used, but for the sake of simplicity, I will only focus on the squat style because that is the one used by 99 percent of the athletes who do snatches.

> Learning how to do a full snatch benefits not only strength but many other athletic attributes, such as flexibility, coordination, foot speed, balance, timing, determination and mental acuity.

The snatch is one of the two contested lifts in the sport of Olympic weightlifting (the clean and jerk is the other), so competitive weightlifters do lots and lots of snatching out of necessity. Yet full snatches have value for all athletes because they involve so many of the larger muscle groups in a dynamic fashion. In fact, every muscle in the body is activated during the execution of a full snatch, including smaller groups such as the biceps and calves.

The snatch is a high-skill movement, so every rep requires absolute concentration on the part of the athlete, which means the nervous system receives much more stimulation than when a static exercise is done. Whenever an athlete masters the technique in the full snatch, he has learned to trigger the necessary form cues instantly, and this skill is transferred to all his other athletic endeavors.

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Back angle during the set-up and pull off the floor will be determined by an athlete's proportions. The key is to maintain a constant back angle from the floor until the bar is above the knees.

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In other words, learning how to do a full snatch benefits not only strength but many other athletic attributes, such as flexibility, coordination, foot speed, balance, timing, determination and mental acuity. A wide range of athletes benefit from doing full snatches, from tennis and basketball players to competitors in all contact sports. Perhaps throwers in track events such as the shot put, hammer, discus and javelin see the most benefits. Performing full snatches teaches them to propel objects much longer and with a more powerful snap at the very end, and the enhanced foot speed, coordination, balance and timing they develop from snatching help, too.

Flexibility and Grip

Before learning how to do full snatches, an athlete needs to be able to do two other exercises: overhead squats and power snatches. I'll start with the power snatch. Even if someone isn't interested in moving on to full snatches, this is an excellent exercise for building back strength in a rather unique fashion. Power snatches involve the lats to a greater degree because the snatch utilizes the widest grip of any pulling exercise. Back when physique contestants regularly competed in Olympic contests in order to gain athletic points, they did lots of power snatches, which was a legal form of the lift. As a result, they ended up with amazing lat development. The lift also has a very positive effect on the traps and shoulders. This is due to the fact that the bar is pulled so much higher than in any other exercise, bringing into play the wide portion of the traps and the rear deltoids in an entirely different manner.

The first step in preparation for power snatches is making sure your shoulders are flexible enough to lock the bar out overhead correctly. Flexibility will also be needed for overhead squats, so time must be spent improving it. Of course, some already possess sufficient shoulder flexibility, especially young people. Females, too, have no problem with tight shoulders. However, those who are older or have been enamored with the bench press generally find they lack the range of motion needed in their shoulders to properly lock out a snatch.

These issues can be rectified unless there is a reason for the tightness, such as an old shoulder or elbow injury. Simply take a stick or towel, hold it overhead with your arms locked and rotate it back and forth until you feel your shoulders loosen a bit. Then bring your grip a bit closer and do it some more. Most Olympic lifters carry a length of clothesline in their gym bags and spend a great deal of time keeping their shoulders very flexible. Some, like Dr. John Gourgott, could hold a length of clothesline over his head with his arms perfectly vertical and rotate it down to his lower back.

jontunn/Creative Commons

Grip width is dependent on several factors. Large athletes with good grip strength may find success with the hands near the collars, while a narrower grip puts less strain on the wrists and is usually best for smaller athletes.

Obviously, the more you work on making your shoulders more flexible, the better, so stretch them before you train, in between sets while you train and at night while watching TV. You want to be able to hold the bar with a wide grip directly over your head. If you drew a line up from the back of your skull, that's where the bar would be held. Once you're able to achieve that much flexibility in your shoulders, you're ready to power snatch.

The immediate question arises: how wide should the grip be? This depends on several factors, such as height, body weight and degree of flexibility in your shoulders. Those with very wide upper bodies often have to grip the bar at the extreme ends of the Olympic bar, but most do not have to go that wide. On Olympic bars, there's a score on each side six inches in from the collars. Wrap your ring fingers around that score. If, after doing a few reps, you find that isn't quite right, make the necessary adjustments. Sometimes, a slight half-inch shift makes a world of difference.

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Once the bar is above mid-thigh, Bill Starr says you should drive your hips forward and aggressively shrug your shoulders before initiating the arm bend.

Next, learn how to hook-grip the bar. While you can use straps for power snatches, you shouldn't with full snatches. Straps alter the line of pull ever so slightly, and if you miss a full snatch back over your head, you do not want to be strapped to the bar. The hook grip is simple: just bring your thumbs under the bar and lock them down tightly with your middle and index fingers. Those with chubby fingers can only manage to get their index fingers over their thumbs, but that's better than nothing.

You might be thinking, "Doesn't the hook grip hurt?" Yes it does, but only until you get used to it, and here's a tip Olympic lifters use to reduce the pressure on their thumbs: they wrap a 1/2-inch strip of trainer's tape around the thumb at the joint closest to the palm. Just wrap the tape around two times, because more will cause the tape to bunch up, which makes matters worse. If you start using the hook grip from the very beginning when you're training with light weight, you'll quickly get accustomed to it, and in no time you won't notice it at all.

The First and Second Pulls

Now you're ready to do power snatches. Step up to the bar with your shins touching it. To find your ideal foot placement for this or any other pulling exercise, do this: shut your eyes and set your feet as if you were about to do a standing broad jump. That's your most powerful stance for pulling a weight off the floor.

Hook-grip the bar, flatten your back and lower your hips. How low? Again, this starting position is determined by body type to a large degree. Taller athletes can benefit from setting their hips rather high, even high enough to put the back parallel to the floor. However, this only works if the athlete can maintain that position as the bar moves off the floor. Should his hips elevate during that initial pulling motion, he needs to lower them a bit. Placing the hips slightly below a line parallel to the floor works best for most, but some experimentation may be in order to find the one that suits you.

Your entire back must stay extremely tight throughout the power snatch. The most effective way to ensure that it starts and finishes tight is to lock your shoulder blades together and keep them that way during the movement. Look straight ahead. Make sure the bar is snug against your shins and your frontal deltoids are a bit out in front of the bar.

> Instead of thinking about rushing the bar off the floor, try this: get set, tighten all the muscles in your body from your toes to your neck, then imagine you're pushing your feet down into the floor and squeeze the bar upward with your arms straight and your back extremely flat.

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The initial stage of the movement, breaking the bar off the floor, is basically a deadlift. This must be done in a smooth, controlled fashion. The tendency of most beginners is to jerk the bar upward, using their arms, in hopes of getting a jump-start on the exercise. That doesn't work at all and usually ends up sending the bar running forward, which spells disaster for the finish. And when the arms are bent prematurely, the back tends to round, once again causing the bar to move too far out front for you to have a successful finish.

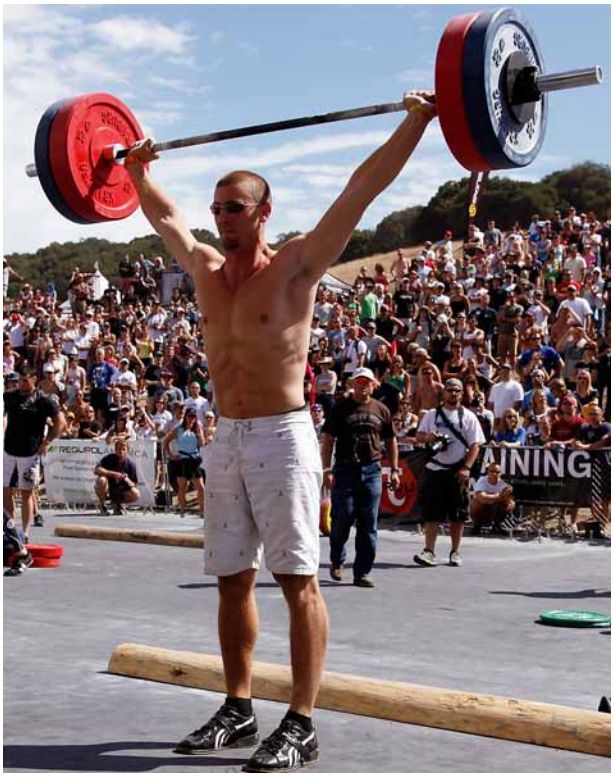
Instead of thinking about rushing the bar off the floor, try this: get set, tighten all the muscles in your body from your toes to your neck, then imagine you're pushing your feet down into the floor and squeeze the bar upward with your arms straight and your back extremely flat.

When the bar passes mid-thigh, drive your hips forward aggressively and—with your arms still straight—shrug your traps. All the while, the bar must be close to your body. Make sure you don't punch the bar away from your body when you drive your hips forward. Many athletes pick up this habit. It's fine until the weights get heavy, but then it knocks the bar out of the correct positioning to finish strongly. After the bar passes your navel, bend your arms explosively and your biceps and brachioradialis will punch the bar upward even higher. The final touch is to extend high on your toes and elevate the bar a couple more inches. These final inches are often critical to making the lift cleanly.

The power snatch is a long pulling motion, so it's absolutely essential that the bar stays close to your body until it passes your head. If it moves away there's little you can do to correct the error without taking a step forward, and you don't want to do that because you will not be able to take a step during the full snatches.

It's also important to learn how to drive your elbows up and out, rather than back at the very conclusion of the pull. Remember, once your elbows rotate backward, you no longer have any upward thrust and have to depend on momentum or pure shoulder strength to fix the bar properly over your head. Conversely, when you keep your elbows up and out, your powerful traps can assist you with the finish.

> While holding the bar overhead, extend pressure against it and think about stretching it apart as well.



Staff/CrossFit Journal

At lockout, the bar should sit right over the back of your skull. With the bar overhead, you should push up against it and try to stretch it apart. Passive shoulders will result in unstable positions.

Lowering the Bar and Foot Position

The lockout is a coordinated movement that gets better with practice. As the bar climbs past your head, bend your knees slightly and dip under the bar. Don't just catch the bar overhead—push up against it. This will help you place it exactly where you want it to be and control it more readily. If you find that you're catching the bar with bent arms, reduce the weight until you're able to lock it out with your arms straight. This is most important because you're not going to be able to hold a full snatch with bent arms—at least not any attempt with a heavy poundage.

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The overhead squat is a critical part of the snatch. It will help you find the correct line of travel for the bar and improve your stability.

Once the bar is locked out overhead, fix it in that spot atop the imaginary line running from the back of your head. Don't let it hang too far out front or push it way back over your head. This might be all right for a light power snatch, but it will not work with heavy weights or with any amount of weight in a full snatch. The bar will just fall to the floor in either case.

While holding the bar overhead, extend pressure against it and think about stretching it apart as well. This helps to strengthen the position and will prove to be most valuable as you move on to full snatches. It is most important to lower the bar back to the floor in a controlled fashion. Allowing it to fall to the floor unimpeded is not a good idea. The fast-falling weight will invariable cause the athlete's back to round excessively and can result in any injury. The bar should be lowered in two steps: first from lockout to waist. Bend your knees and cushion the bar at your waist. Then, with a very flat back, ease the bar to the floor.

Think of a power snatch as a whip. The bar will come off the floor deliberately in a perfect line, pick up speed through the middle, and be no more than a blur at the top. In the final pulling position, the athlete should be high on his toes with an erect torso, the bar tucked into the body and the elbows up and out.

Some coaches feel it's best not to move the feet during a power snatch, believing this forces the athlete to pull longer. Others want their lifters to skip-jump at the very end of the pull as this movement is closer to what transpires in a full snatch. I teach my athletes not to move their feet while they're learning to do power snatches as it's yet another thing to think about in an already complicated movement. Once they master the lift, they can begin skip-jumping.

> Squeeze out of the bottom of an overhead squat in a controlled manner. When you try to explode upward, you will almost always drive the bar out of the proper line.

Power snatches are high-skill movements, so stay with lower reps. A couple of sets of fives will serve as a warm-up, then just do threes. Add weight as you become more proficient, but make sure your form is always good. If the lift becomes sloppy, lower the weight. You don't want to build any technique mistakes into this lift because they will carry over to the full snatches.

Overhead Squats

Overhead squats are rather easy to do once your shoulders are flexible enough to hold the weight in the proper position. While learning this exercise, simply power-snatch the weight, fix it precisely overhead, then go into a deep squat. You'll learn rather quickly that this form of squatting is very different from back or front squats. The bar must travel in a tight up-and-down line. If the bar moves too far forward or back, you will not be able to control it and will have to dump the weight.

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Keep in mind that everyone ends up dropping a bar while learning this movement. It's no big deal, but make sure you just let the bar go when it's out of control. That's why it's so important to keep your arms locked tightly during the execution of the overhead squats. Should it run out of the correct line, merely push it away from your body,

After you power-snatch a weight or have two training mates assist you in getting the bar overhead, move your feet a bit wider so you'll be able to go into a full squat. Once your feet are set, push up against the bar forcefully while making sure it's positioned perfectly in a line directly over the back of your head. Then pull yourself down into a deep squat. Don't lower yourself slowly as this will invariably cause you to lean forward in the middle, and the bar will come tumbling down. When you get to the bottom, sit there for a second or two, staying tight all the while. This long pause will let your feel how a full snatch will feel, and it will also make the bottom position much stronger—a definite plus.

Squeeze out of the bottom in a controlled manner. When you try to explode upward, you will almost always drive the bar out of the proper line. Overhead squats must be done deliberately, and everyone finds that after the first difficult session their middle and upper backs get extremely sore from this new method of squatting. Do these for triples. I should note that even if you're not interested in moving on to full snatches, overhead squats are an excellent way to work all the groups in your shoulders, back, hips and legs in a different manner than any other exercise.

The Drill

Spend a month or six weeks mastering the power snatch and overhead squat, at which point you'll be ready to learn how to do full snatches. In my article Learning How to Do Full Cleans (*CrossFit Journal*, Nov. 18, 2009), I recommended using the three-step exercise I call the Drill, which I picked up from Morris Weissbrot, the Olympic-lifting coach for the Lost Battalion Weightlifting Club in New York City.

I also use the Drill when I'm teaching an athlete how to do full snatches. The exercise consists of a power snatch followed by an overhead squat, a hang snatch plus an overhead squat, then a full snatch. The first segment teaches you to pull long and hard at the top, the second teaches you to move quickly into the bottom position, and the third lets you know just how it feels to do a full snatch.

Use a hook grip because a conventional grip will begin to slip after the first or second phase of the Drill. The first step is merely combining the two exercises you've already been doing, but with a slight twist. Because your feet need to be wider for the overhead squat than the power snatch, you need to start skip-jumping at the end of the pull. It will, of course, take practice to learn just how far to skip-jump your feet so they're in the ideal placement for you to overhead squat. I have my athletes mark where their feet need to land with a piece of chalk until they have that movement down pat. And think about slamming your feet into the floor when you skip-jump. This will provide you will a more solid foundation from which to squat.

> As soon as you give the bar that final, strong snap, you must move to the bottom position and pull the weight down with you. ... Stretch the bar and exert pressure up against it rather than merely holding it overhead.

Stand up and lower the bar to your waist. Take a moment to reset your feet to their strongest pulling position. Now you're ready for the second phase of the Drill. Make sure your back is tight and flat and your frontal deltoids are out in front of the bar. Lower the bar to mid-thigh, then pull it as high as you can. Your line of pull has to be exactly the same as when you power snatch. Many lean too far backward, letting the bar rest on their thighs, but this will cause the bar to drive you back, and you'll end up on your butt. Be prepared to fail. No one has ever learned the Drill without being knocked around some. It's like riding a bike: falling is part of the process. But learn from your mistakes and you'll come out just fine.

Try to fully extend on the hang snatch. That will give you time to jump into the bottom, and if you finish your pull with your torso fully erect, you'll be able to hit the bottom

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The power snatch is the first part of the Drill. Note the consistent back angle during the first pull, the full extension at the top of the pull and the aggressive overhead lockout with the shoulders pushed up into the ears.

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in that same correct position. The second phase teaches you timing, a critical aspect of the snatch. As soon as you give the bar that final, strong snap, you must move to the bottom position and pull the weight down with you. Some of the top lifters are able to let the bar crash down and still control it. However, they are the exceptions and not the rule. Stretch the bar and exert pressure up against it rather than merely holding it overhead. This second move has to be done in the blinking of any eye. It is the most difficult of the three steps but also the most beneficial. Once you master the hang snatch, the full snatch is a snap.

The pull sequence on the hang snatch has to be perfect: traps, then arms, with the elbows staying up and out with the bar tucked in close. At the end of the pull, you should be high on your toes, just as in a power snatch. From that extended position, you must explode down into a deep squat while simultaneously locking out the bar. Sounds tough? It is, but it's the key to learning the full movement and has been done by thousands of athletes, so there's no reason why you can't do it as well,

Stand up and place the bar back on the floor. Reset your feet and make sure your back is flat and the bar is in front of your shoulders, now you're ready for the final set. If you have learned how to do the hang phase correctly, the last step is rather easy. Pull the bar exactly as if you're going to power-snatch it. Once you're fully extended, jump into the deep bottom position. You've done a full snatch.

Final Tips

Athletes make the same two mistakes on the hang and full snatches: they fail to extend fully and they do not go into a deep squat. That's why it's called the Drill. You must do the three-step exercise over and over until everything falls in place and that third segment is done perfectly. Use a poundage that is demanding enough that it makes you pay close attention and work hard but not so heavy that you are using faulty technique. In some cases, a slightly heavier weight makes the Drill easier to do than a lighter one.

If you have followed my advice on learning cleans and taken the time to learn how to snatch, you're now ready to take part in one of the greatest sports of all: Olympic weightlifting.

Don't be concerned about how much you can lift or whether you'll win a medal; enter a competition. In a competition, you will learn from watching others, and the electric atmosphere will inspire you to lift a great deal more than you thought you would. Or less. Either way, you will add to your knowledge bank, and this will help you get stronger and become a better athlete in any sports endeavor. The two quick lifts are great for building functional strength that can be utilized in a wide range of athletic activities, so make them a part of your strength program.

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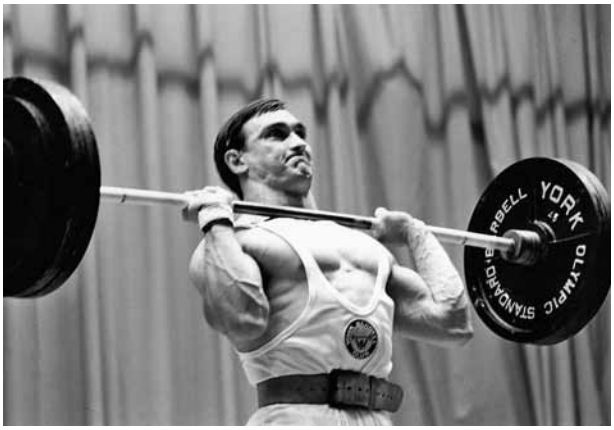

Jody Forster

About the Author

Bill Starr coached at the 1968 Olympics in Mexico City, the 1970 World Olympic Weightlifting Championship in Columbus, Ohio, and the 1975 World Powerlifting Championships in Birmingham, England. He was selected as head coach of the 1969 team that competed in the Tournament of Americas in Mayaguez, Puerto Rico, where the United States won the team title, making him the first active lifter to be head coach of an international Olympic weightlifting team. Starr is the author of the books ***The Strongest Shall Survive: Strength Training for Football*** *and* ***Defying Gravity****, which can be found at The Aasgaard Company Bookstore.*

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THE CrossFit JOURNAL

Tuning the CrossFit Athlete—Part 1

Can't get into a squat? Lacking power in your snatch?
Aggressive bodywork may be able to help you unlock your full potential.

By Daniel Christie | I Am CrossFit **January 2010**

Staff/CrossFit Journal

Less than ideal posture is a sweeping epidemic afflicting almost every single person in the world.

The sight of a forward head position, rounded shoulders, internally rotated arms and anterior-tilted pelvises is commonplace in gyms, offices and even CrossFit boxes. If these patterns are left unchecked, recovery rates can be impeded, injury rates increased (especially in those new to CrossFit) and performance diminished.

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All Crossed Up

Via research, Dr. Vladimir Janda identified a predictable pattern of muscles prone to tightness or shortness and weakness or inhibition (Table 1). He used the terms "upper crossed syndrome" and "lower crossed syndrome" to describe the conditions produced by these patterns.

The muscles that predictably tighten reduce the ability of CrossFitters to adopt ideal postures during the deep squat, clean and jerk and other such exercises. How many times have we seen a person fighting to adopt the set position in the deadlift or trying to get in the "hole" during a squat? Common inhibition patterns can also be detrimental to midline stabilization during heavy axial loading, as well as stability around the shoulder and knee.

Staff/CrossFit Journal

Table 1—Vladimir Janda's patterns of upper and lower crossed syndrome

Typical muscle imbalances in the upper crossed syndrome		Typical muscle imbalances in the lower crossed syndrome	
Tight, facilitated	**Weak, inhibited**	**Tight, facilitated**	**Weak, inhibited**
Pectorals	Longus capitis & colli	Iliopsoas	Rectus abdominis
Upper trapezius	Hyoids	Rectus femoris	Gluteals
Levator scapulae	Serratus anterior	Hamstrings	Vastus medialis
Sternocleidomastoid	Rhomboids	Lumbar erectors	Vastus lateralis
Anterior scalenes	Lower & middle trapezius	Tensor fascia latae	Transversus abdominis
Suboccipitals	Posterior rotator cuff	Thigh adductors	
Subscapularis		Piriformis	
Latissimus dorsi		Quadratus lumborum	

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Trainers often see horrible, awkward movements that limit performance and can't be corrected with a simple cue. Why? It can often come down to poor strength and stability levels or poor memorized motor patterns, but it can also result from short, tight, facilitated musculature. Tight muscles—such as the psoas, the rectus femoris and the ankle dorsi flexors—will wreak havoc on virtually every CrossFit lift.

The difficulties associated with upper and lower crossed syndrome go even further. This is well explained by Sherrington's law of reciprocal inhibition, which states that a "hypertonic antagonist muscle may be reflexively inhibiting their agonist. Therefore, in the presence of tight and/or short antagonistic muscles, restoring normal muscle tone and/or length must first be addressed before attempting to strengthen a weakened or inhibited muscle."

In the January 2003 issue of the *CrossFit Journal*, Coach Glassman wrote a piece on muted hip function (*A Postural Error—A Costly Biomechanical Fault: Muted Hip Function*). In his article, Coach stated that muted hip function is present in virtually all CrossFit athletes and that it can take up to three years of quality training to restore explosiveness in the posterior chain.

Access Your Power

I have noticed time and time again that when CrossFitters present with muted hip function they commonly have signs of the dreaded lower crossed syndrome. I have had amazing success resolving this issue through the restoration of muscle balance around the pelvis.

Muscles that have been reflexively inhibited by tight antagonists—e.g., the gluteus maximus by the illiopsoas and rectus femoris—often recover spontaneously after addressing the tightness.

Courtesy of Matt Roy

The therapist is opening up the anterior hip structures. This technique is a great way to increase the length of the psoas and illiacus, both of which inhibit the powerful posterior chain.

I feel that this nugget of information is so important I'm going to say it again: if you have tight hip flexors, your ability to push press, power clean and snatch will be reduced.

This theory has huge implications for what you should be doing on off days and during your warm-up and time spent on the massage table. I feel that this nugget of information is so important I'm going to say it again: if you have tight hip flexors, your ability to push press, power clean and snatch will be reduced.

The illiopsoas is one the key hip flexors and spinal stabilizers, and noted American physician Janet Travell called it the "Hidden Prankster." This single muscle can create a whole host of problems for the CrossFitter.

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Courtesy of Matt Roy

Here the therapist is aiming to accentuate the stretch of the rectus femoris with emphasis on the origin of the muscle, which can be found in the area near the hip bones.

If tightness and trigger points are present in the psoas muscle, it is rarely a single muscle myofascial syndrome. In fact, the quadratus lumborum normally becomes problematic due to its synergistic relationship with the psoas pertaining to spinal stabilization. Other synergists will likely exhibit muscular faulty adoptions, such as the rectus femoris, tensor fascia latae pectineus and lumbar paraspinals. Note that virtually all of the above muscles that can become problematic in the presence of psoas dysfunction will further compound the issue of the lower crossed syndrome. In other words, this can seriously jeopardize your maximum snatch and deadlift.

This problem also manifests in the upper body. Commonly, the pectorals inhibit the scapular retractors that are so important, especially when you're trying to complete Isabel, JT or Josh. These WODs require amazing levels of shoulder stability and thoracic and hip mobility in addition to raw strength.

Courtesy of Matt Roy

The stretch demonstrated here will help restore the length of short and tight pectorals, thereby helping to reduce weakness of the scapula retractor muscles.

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Physical therapist Shirley Sharmann suggests that athletes whose scapula are in the abducted position concomitant with upper crossed pattern will go on to suffer pain between the scapula and tenderness on the anterior and medial deltoid and have associated impingement of the rotator-cuff tendons. All this will be exacerbated with overhead activities—how many times have you heard these complaints in the local box?

The latissmus dorsi muscles are often overlooked when athletes exhibit the above signs and symptoms. It is integral to ensure that adequate length, and indeed strength, is maintained in this muscle for optimal biomechanics of the shoulder girdle, especially during overhead pressing and pull-ups.

Soft-Tissue Solutions

By implementing corrective measures now, you can achieve long-lasting relief from chronic neck, back and shoulder pain, improving the form of key CrossFit lifts at the same time.

Postural and movement harmony is achieved by utilizing assisted stretching with an emphasis on post-isometric relaxation and myofascial and golgi tendon organ release techniques. Muscle fibre activation techniques are used to create tonus, achieved through stimulation of the dynamic gamma motorneuron system. According to Dr. Erik Dalton in his article Mobilizing Joints Through Muscle Manipulation, "Recent studies have confirmed a noticeable reduction in noxious neural input entering the spinal cord and brain when the postural goals are met."

By implementing corrective measures now, you can achieve long-lasting relief from chronic neck, back and shoulder pain, improving the form of key CrossFit lifts at the same time.

Courtesy of Matt Roy

These soft-tissue techniques are two great ways to add functional length to the large, powerful back muscles that are prone to facilitation.

Dalton goes on to cite the 1979 work of biomechanical researcher J. Gordon Zink, who described common postural patterns in the neuromyofascial-skeletal system with the term "common compensatory patterns." Zink concluded that stress on postural muscles can lead to chronic problems. For example, irritation of the central nervous system can be initiated by certain sensory receptors.

One particular treatment that has proven to have considerable benefits is Myoskeletal Alignment Technique, pioneered by Dr. Dalton, executive director of the Freedom From Pain Institute. The idea behind Myoskeletal Alignment Technique is that back and neck pain are caused by fundamental problems with the musculoskeletal system. Tight, stressed muscles contribute to pain by limiting freedom of movement, while weak muscles provide inadequate support for the body. This in turn leads to posture problems, stiffness and other symptoms that create an endless cycle of pain.

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By addressing the fundamental issues in the muscles and fascia, practitioners hope to eliminate the associated symptoms and help improve athletic performance.

Let's look at an example of the concept in practice. For those of us who have the postural traits of lower crossed syndrome, the most commonly given advice for back pain is to just stretch out the low back and hamstrings first thing in the morning. These actions, although well intended, will not greatly help your back and may well even worsen the problem in the long term.

Treating pain without improving posture is generally regarded as a quick fix and at best only a temporary solution for helping CrossFitters in need. In such cases, we should aim to improve pelvic balance and muscle tone by incorporating the techniques described above. In other words: strengthen what is weak and stretch what is tight (see Table 1 for common patterns).

Joint dysfunction creates protective muscle spasm and dysfunctional strain patterns, such as forward head postures, slumped shoulders and scoliosis. The reflexogenic relationship between muscles and joints is the foundation of Myoskeletal Alignment Technique.

So how do you go about reducing reflexively inhibited muscles, normalizing upper and lower crossed patterns *and* getting the most of your WODs? I would strongly suggest that you visit a structural massage therapist, or better still, try to find a myosketetal trained therapist.

In a session of Myoskeletal Alignment Technique, the practitioner works to lengthen tight, strained muscles with the goal of releasing tension and allowing those muscles to function more normally. Sessions are tailored to the individual, typically combining the use of deep-tissue work with assisted stretching.

Myoskeletal Alignment Technique aims to restore muscle balance. Ideal muscle tone surrounding the joints needs to be re-established in order to provide an advantageous environment in which the soft tissues of the body can repair after the rigors of your WOD.

More Than a Massage

But can't I just see my local masseur who does standard Swedish massage? Well, not really.

When people ask how I train, I reply with "CrossFit." A common retort is that it's like boot camp or circuit training. I respond by saying, "No, it's CrossFit!" To

Courtesy of Matt Roy

Stretching the levator scapula can help improve range of motion of the neck and reduce forward head posture.

Courtesy of Matt Roy

This image shows golgi tendon organ release for the right sternocleidomastoid to help alleviate pain caused by forward head posture.

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the layman, the two may look alike until he or she tries CrossFit. The same misconceptions exist when it comes to soft-tissue and structural bodywork. Swedish massage is to boot-camp-style training as myoskeletal work is to CrossFit.

If you can't find a therapist with adequate training and qualifications, I suggest that you print this article and ask the therapist to perform the techniques described in it. Specific myoskeletal protocols will aim to normalize postural deviations and range-of-motion deficits and tonify weak phasic musculature. This type of approach can help you to become a fully tuned CrossFitter who will perform better and recover quicker, while reducing your likelihood of overuse injuries.

The idea behind structural integration is that if someone's body can be aligned properly, his or her health problems can be dramatically reduced, because the body will work as a whole. The muscles and fascia will also be manipulated to release pain and to encourage proper musculoskeletal alignment and ideal movement patterns.

I have worked closely with CrossFit affiliates both in the United States and the U.K., and my experience has proven that these techniques can really make a difference.

Rick Gutierrez of CrossFit Weston in Florida was one such athlete. Rick is also the model featured in the pictures that accompany the article.

"Myoskeletal Alignment Technique helped alleviate most of the pain almost immediately that typically hinders me during my WODs," Gutierrez said. "These methods literally put my muscles back in place, which allowed me to move more smoothly than I had in a long time.

"With continuing therapy, I am now able to recover faster after the WODs. I no longer feel tension and tightness from simply sitting around. After my positive experience working with Danny, I have had several of my clients use his methods with great success."

Courtesy of Matt Roy

Here the therapist is activating the commonly inhibited scapula retractors and gluteal musculature. Inhibition of this very important musculature will limit strength potential and decrease athletic performance.

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You can put this into practice yourself. Endeavor to stretch the muscles that are tight and strengthen the muscles prone to weakness. Generally, most CrossFitters exhibit the common traits depicted in Table 1. Most of us will greatly improve our CrossFit performance by simply adding several stretches to our daily routine (focus on the muscles described as "Tight, facilitated" in Table 1).

I would also suggest seeking out the services of a suitably qualified, experienced therapist who can work with you to develop a tailored plan and correct your muscle imbalances.

In part 2 of this article I will illustrate several highly effective self-stretches and soft-tissue techniques to help with the muscular-imbalance issues highlighted here.

For more information regarding Myoskeletal Alignment Technique, please visit ererikdalton.com.

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About the Author

Danny Christie is a graduate sports therapist from England. He now lives and works in Miami, Fla., where he continues to attend many manual therapy seminars and trains at I Am CrossFit in Doral. Danny is an advanced myoskeletal therapist and avid student of Erik Dalton's teachings. Visit his website at dannychristie.com, or e-mail him at danny@dannychristie.com.

THE CrossFit JOURNAL

Adaptation for Fitness

Intense CrossFit workouts improve your fitness—but how? Dr. Lon Kilgore explains how doing Grace can cause adaptive changes at the cellular level and result in improved performance.

By Dr. Lon Kilgore Midwestern State University **January 2010**

Courtesy of the Faculty of Kinesiology and Recreation Management, University of Manitoba

Any study of exercise physiology must begin with an understanding of what it is we wish to know. Exercise physiology is an applied science, meaning it is intended to solve a problem. The problem needing solving is that we—you, me and our trainees—are not as physically fit as we could be.

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The solution that needs to be provided by our study should be a defined means of improving fitness levels. The discipline of exercise physiology should provide us with an understanding of how the body adapts to exercise to make us more fit. We can begin that quest with a look at the work of one individual, Hans Selye, MD.

Who Is Hans Selye and Why Do I Care?

Adaptation is not a new concept. Friedrich Nietzsche's quote, "That which does not kill us makes us stronger," is a famous adage used in reference to the many challenges we face in life. The fact that it's from the 1800s means we have known for hundreds of years that the human body, when presented with a sub-lethal physical, psychological or chemical stress, can adapt to the source of stress, allowing the body to tolerate incrementally larger similar stresses.

Numerous and earlier historical writings in science and medicine provide observations that mirror Nietzsche's. But none of these writings provided us with anything other than anecdotes—nice observations of the end results of adaptation. It was not until the 1936 synthesis of the general adaptation syndrome by Seyle that we had our first understanding of how the adaptation occurred. Selye, an endocrinologist and professor at McGill University in Montreal, Que., spent a lifetime pursuing a goal of understanding how humans responded and adapted to all types of stress. His work in this area forms the essential foundation of exercise physiology. The entirety of the discipline exists as extensions of Selye's theory of biological adaptation.

Selye's work forms the essential foundation of exercise physiology. The entirety of the discipline exists as extensions of Selye's theory of biological adaptation.

Courtesy of the University of Montreal

Dr. Hans Selye started researching "stress" in the 1920s, and his general adaptation syndrome still forms the basis of most exercise science.

Through Selye's own works and his analysis of other scientists' discoveries, he was able to develop a generalized pattern of organismic responses and adaptations to a variety of stressors. The general adaptation syndrome outlines a series of stages through which the body passes as it successfully adapts, or the stages that lead to a failure to adapt.

Selye's 1936 paper was titled *A Syndrome Produced by Diverse Nocuous Agents* and examined structural and functional changes in organisms, single-cell to human, after exposure to "nocuous" (harmful) stresses such as injury, cold exposure, intoxication, drugs and—most important for our purposes—exercise.

Seyle proposed that all organisms mount an acute response, then a chronic adaptation after surviving exposure to stress. The final adaptation enables the organism to tolerate a subsequent and more intensely stressful exposure to the same type of stress—a physiological expression of Nietzsche's popular quote.

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Dr. Lon Kilgore

Stress produces adaptations, and by precisely measuring those adaptations we can determine the best form and amount of stress needed to produce optimal changes in physiology.

The general adaptation syndrome has three basic stages: alarm, resistance and exhaustion. The former two are quite useful and represent a positive adaptation leading to survival. The latter stage represents a failure to adapt to an overwhelming stress and might result in death of the organism. Let's look at each stage individually and examine what occurs and why.

It should be understood that if exercise is to drive adaptation (fitness gain), the work done in training must continually progress in load. No increased load leads to no improvement in fitness.

Setting off the Alarm

In the alarm stage, the body experiences a novel stress or novel level of magnitude or frequency of a previously experienced stress. That the magnitude or frequency of stress application exceeds the levels previously experienced is very important. It takes such a level of stress to disrupt the internal equilibrium of the cell, tissue or organism and induce the alarm stage.

Once the cascade of events is triggered, we see the physiologic intent of this stage is survival at all costs. The stressed cell or tissue diverts all available resources—energy, metabolic resources and architectural substrates—from carrying out normal functions to the maintenance of cell-structure integrity. Making new and replacing normal cellular chemicals and structures slow to a crawl while creation of cell-stabilizing stress proteins, acute-phase proteins and beneficial inflammatory mediators increases. This selective increase in production acts like basic life support, keeping the cell from being damaged further in the presence of the stress.

Once the stress is removed, there is a fairly rapid return of homeostasis, within six to 48 hours (Selye's proposition). It must be understood that the alarm stage is the stimulus for adaptation, and for us it is the stimulus for improved fitness. If this is understood, it should also be understood that if exercise is to drive adaptation (fitness gain), the work done in training must continually progress in load. No increased load leads to no improvement in fitness.

The idea of progression, just like the concept of adaptation, is not new. Its origin is often credited to the Greek Olympian Milo of Croton (circa 400 B.C.), who became the strongest of all of the original Olympians by reputedly lifting a bull each day of its life, from calf to full-grown bull. So the idea of progression as a training reality has been accepted for a couple of millennia. Selye simply provided us with a lucid physiological explanation for how and why it occurred.

Resistance Is Not Futile

The second phase of the syndrome is the resistance stage. During this stage, the organism starts producing more metabolic and structural elements that are required to enhance its ability to withstand another exposure to the damaging stress. That makes sense: resistance to stress is developed. While the alarm stage is absolutely

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Dr. Lon Kilgore

The proper application of stress will result in increased performance until a person's genetic ceiling is reached. Few athletes ever approach this limit.

crucial to initiating fitness gains, the resistance stage is where fitness gains actually occur. I would propose that a better name for this stage would be the "adaptation phase."

The duration of this phase is greatly variable from days to months, depending on a number of issues including the magnitude of homeostatic disruption. Was the workload a little or a lot more than normal? Was it a single or cumulative overload? Is the trainee fit or unfit? The end result is always the same: an enhanced physiological ability to tolerate a specific stress.

Here is a good place to introduce the basic premise of specificity. While the stages of the general adaptation syndrome follow the same pattern regardless of stress type, a specific stress such as running 10 kilometers for the first time will produce a set of physiologic adaptations intended to make the trainee able to run the distance again with a lower degree of perceived stress as well as less, if any, homeostatic disruption. Running 10 kilometers generally will not improve sprint speed or squat strength to any appreciable extent because long, slow distance running cannot induce the specific set of adaptations required to do so effectively.

Exhaustion on a Cellular Level

The third stage is known as the exhaustion stage. Selye envisioned it as a stage where the organism's adaptive capacity was overwhelmed, or exhausted. Homeostasis has been disrupted, and the magnitude of disruption is so profound that recovery is impossible. The repercussions of this stage can be quite dire, with death being among the possibilities.

We all know exercise can kill you—Selye considered it a nocuous stress—but deaths among healthy exercising individuals are rare. This means the third stage, relative to exercise, is usually manifested as something less dire. We will call it "overtraining."

We will look at Stage 3, or overtraining, as being induced by excessive volume (duration, frequency or both) or intensity (level of exertion relative to maximal ability) of exercise—or a combination of both. The physiological results of overtraining are quite diverse, individual and destructive, but in general they are marked by an inability to compete or train at expected levels. Fitness has decayed.

The Flow of Adaptive Information

When we disrupt homeostasis, a series of events affects our physiology at the most molecular of levels. We affect the operation of our genes, little segments of DNA (deoxyribonucleic acid) sequestered in the nuclei of our cells. Our genes control pretty much everything about our anatomy and our physiology through a handy-dandy little informational flow: DNA makes RNA (ribonucleic acid) makes protein makes function.

Initially a novel exercise stress shuts down, represses or down-regulates the activity of many normally active genes in favor of activating, promoting or up-regulating the activity of other survival genes. This is Selye's first stage. The up-regulation of survival genes and down-regulation of normally active genes leads to a different profile of proteins produced by the cell and changes the nature of the functions of the cell, tissue or organism. In this instance, normal cell metabolism and function are repressed in favor of producing transient architectural

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proteins and other emergency proteins that aid in cellular survival.

After the exercise stress has been removed, the survival status of the cell is not immediately altered. Many of the emergency proteins and their related functions remain present and function for some time. But over the days following a single exercise stress, during the resistance stage, the normally active genes become un-repressed and begin amping up their production and function again. But this time either more copies of them will be activated or they will experience an increased efficiency in function. We can also see previously inactive genes become active in order to augment function.

As survival-gene activity and their products' activities abate, the new and enhanced set of genes now active will produce new architectural proteins (things like actin and myosin) and metabolic proteins (such as enzymes controlling energy production) that set up improved performance. The magnitude of change following a single exercise bout is not truly large and may in fact be immeasurable in practice, but the cumulative result of a series of homeostatically disruptive training sessions will be measurable in terms of strength or endurance depending on the type of training done.

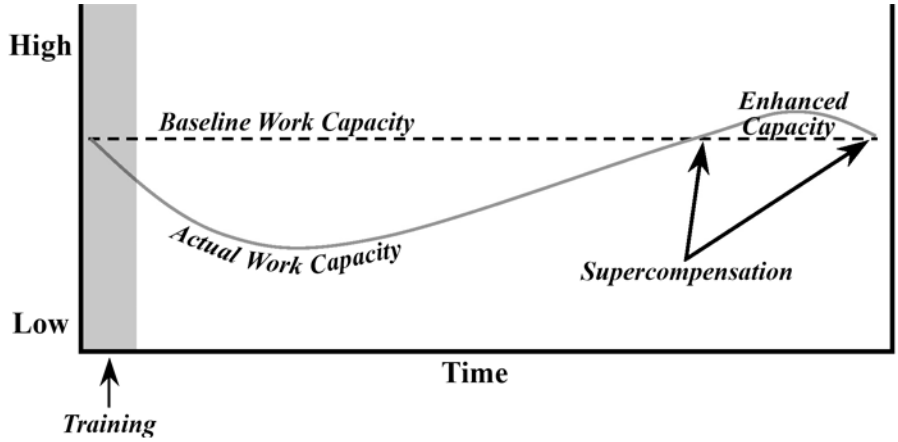
Realize here that the body will arm itself for survival by activating specific genes that contribute to its ability to survive (physical fitness in our example), a further demonstration of the relevance of the concept of specificity.

Making Fitness Gain out of Performance Loss

During Stage 1 of the general adaptation syndrome, we commonly see a depression in physical capacity: our performances in training or competition are less than our best. We feel tired, a little sore, or maybe sluggish. This is normal, expected and even desired as these sensory phenoma tell us that we have indeed disrupted homeostasis, our training goal at this point.

But how do we turn a homeostatic disruption and reduction in physical ability into a positive, fitness-enhancing result? It's fairly simple but also extremely complex. The idea of super-compensation is fairly well known and elementary. When we train, we become fatigued. Fatigue exists not just as the feeling of tiredness we get after training hard but also as a set of biochemical and architectural phenomena occurring in cells, tissues and systems. We can consider it the opposite of fitness, the ability to do work. In fact, fatigue is defined as a reduction in the ability to do work. The balance and timing of the physiological processes of both fitness and fatigue can produce fitness gains through super-compensation. Think of it as the disruption of homeostasis and the occurrence of Stage 1 of the general adaptation syndrome events that induce fatigue, metabolically and structurally.

Also occurring during Stage 1 is the reduction of normal function. Fitness, or the ability to do work, will have been compromised as a protective device to prevent further damage. Over time, the results of Stage 1 will diminish,



Dr. Lon Kilgore

Figure 1: ***Graphical representation of super-compensation. Homeostatic disruption induced by training reduces work capacity. During recovery, work capacity increases to baseline, and if appropriate time is allowed, a transient increase in work capacity is realized. It is imperative to understand that the training undertaken must be difficult enough to disrupt muscular homeostasis, and it must be followed by adequate rest. If those two conditions are not met, super-compensation cannot occur.***

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or fatigue will diminish and the emergency proteins and processes will return to their low baseline: "normal" or absent levels of production or activity.

Right after the withdrawal of stress (the end of the training session or series of cumulative sessions), anabolic processes kick in to restore function (fitness) to the system as rapidly as possible. The magnitude of activity is very large in the time shortly after the end of training but decays in the hours and days following cessation of training. The decay will at some point return back to the original level of function existing prior to the training stimulus. The return of fatigue or the return of fitness back to baseline is not remarkable and does not lead to fitness gain. It is the timing of decay in both that leads to fitness gain.

The general adaptation syndrome and the concept of super-compensation are important to the practitioner because he or she must, through the delivery of training, elicit these physiological phenomena in a controllable, reliable and repeatable manner.

If the rate of fatigue reduction (recovery) is slower than the rate of fitness restoration, then the net effect is either no fitness gain or possibly even a retention of Stage 1 levels of reduced performance ability. If however, the rate of fatigue reduction is faster than the decay of fitness restoration processes, we will experience super-compensation and enhanced fitness, an increased ability to do work (Figure 1). Super-compensation represents the successful entry and completion of Stage 2 of the general adaptation syndrome.

At this point, recovery methodologies become relevant. Adequate nutritional support and sleep provide the body with the elements necessary for maximizing the magnitude of fitness-restoration processes while also facilitating more rapid fatigue reduction. Not only can poor nutritional habits and inadequate sleep duration reduce the degree of super-compensation produced by a training session or program, but such neglect can also move a trainee toward our application of Selye's third stage: overtraining.

The general adaptation syndrome and the concept of super-compensation are important to researchers and practitioners alike. They are important to the former as these two entities provide a conceptual basis for the study of the human during exercise, with the intent of improving physical fitness. They are important to the latter because the practitioner must, through the delivery of training, elicit these physiological phenomena in a controllable, reliable and repeatable manner.

Unfortunately, the practitioner is largely left to his own devices in this task as relevant experimental scientific literature regarding such programming is sparse and often questionable in content. It is advisable for aspiring coaches and trainers to not only become knowledgeable about anatomy and physiology of the human body and how its structure and function dictate exercise programming, but also to apprentice under successful professionals in order to learn how to apply that knowledge toward effective professional exercise practice.

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About the Author

Lon Kilgore is a professor at Midwestern State University, where he teaches applied physiology and anatomy. He has also held faculty appointments at Kansas State University and Warnborough University (IE). He graduated from Lincoln University with a bachelor of science in biology and earned a PhD in anatomy and physiology from Kansas State University. He has competed in weightlifting to the national level since 1972 and coached his first athletes to national championship event medals in 1974. He has worked in the trenches, as a coach or scientific consultant, with athletes from rank novices to professionals and the Olympic elite, and as a collegiate strength coach. He has been a certifying instructor for U.S.A. Weightlifting for more than a decade and a frequent lecturer at events at the U.S. Olympic Training Center. His illustration and authorship efforts include books, magazine columns and research journal publications.

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THE CrossFit JOURNAL

Unleash Your Power

Louie Simmons of Westside Barbell has been producing world-class lifters for decades. At CrossFit Powerlifting Certs, he shares his proven training methods and teaches CrossFitters about strength, speed and explosive power.

By Mike Warkentin Managing Editor **January 2010**

Staff/CrossFit Journal

"Is that a puddle of blood down there?"

CrossFit co-director of training Dave Castro is standing under a monolift at Westside Barbell with a safety squat bar on his back. Between his feet is circle of blood about the size of a salad plate.

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Legendary powerlifter and strength coach Louie Simmons looks at the puddle and laughs like a pirate.

The One and Only Louie Simmons

As the late Hunter S. Thompson might have said, Louie Simmons is one of god's own prototypes. He's truly one of a kind.

At 62, Simmons is revered in the powerlifting community. He's produced world and national powerlifting champions, and he's worked with Olympic gold medalists and professional athletes. As of August 2007, Westside had 25 700-lb. bench pressers and 12 1,000-lb. squatters to its credit. Those numbers are undoubtedly higher now. Lifters from the rugged gym in Columbus, Ohio, are all over the powerlifting record books, and several Westside lifters are current world-record holders. One of them, Laura Phelps-Sweatt, is perhaps the best female powerlifter in the world.

Simmons himself is one of only a handful of lifters to ever total elite in five different weight classes. He squatted 920 lb. and totaled 2,100 lb. over the age of 50. He's overcome two broken backs and a multitude of torn tendons and muscles, and he's patented several powerlifting machines. Despite age and injuries, he's still competing in the sport he loves. On Dec. 5, 2009, he competed at 220 lb. and achieved a 730 squat, 455 bench and 670 deadlift, which made him an elite again.

When the first CrossFitters arrive at the nondescript Westside Barbell, the bald, goateed Simmons is being shaken into a canvas squat suit by two lifters who are holding him off the ground by the straps. Simmons is shirtless, with giant axes tattooed on his chest and "Westside Rules" tattooed across his back and down his spine. He's instantly intimidating and instantly welcoming to the group of CrossFitters present for the

> "I've got 99 problems, but a bench ain't one."
>
> — Louie Simmons

Staff/CrossFit Journal

Louie Simmons has been pushing the limits of strength training for decades, and the leaderboard at Westside Barbell is a roll call of some of the top powerlifters in the world.

first Powerlifting Cert. He's like your grandfather, if your grandfather had the energy of a 20-year-old and could total 1,850 lb. at a powerlifting meet.

"When you squat, don't push your feet into the floor—push them apart," Simmons yells at the CrossFit crew over the gangster rap pumping through the stereo. "That's very important—but we'll get into that later."

Then Louie heads over to the monolift for a series of speed box squats with a bar rigged with bands, chains and plates as opposed to simple stacks of 45s. Using bands and chains changes the movement and makes the bar heavier at the top, which is traditionally the easier part of the lift. Because the tension increases at the top of the movement, bands teach a lifter to generate a lot of force in the bottom to "outrun" the resistance. The bands also make the eccentric portion of the lift far more intense by pulling the bar toward the platform. Simmons swears by "accommodating resistance," and he's modified all his equipment to allow the use of chains and bands.

During the session, the athletes descend to a box and then drive up quickly, generating amazing amounts of power. Super heavyweight Matt Smith (1,160-lb. squat, 2,673-lb. total) is working the monolift as the athletes—including Louie—cycle through. It's instantly apparent that powerlifting is not a misnomer at Westside.

These men and women are strong as hell, but they can move fast.

The Basics of the West Side Method

After the training session wraps, Simmons makes a desk of a bench-press station and spreads his notes out in front of him. Over the next two days, he'll sit behind the bench and outline the basics of the Westside method, illustrating his points with anecdotes and an encyclopedic knowledge of powerlifting stats.

Simmons started powerlifting in 1966, and after researching Soviet methods in the early '80s, he decided strength training in North America was going down the wrong path. To correct the problem, Simmons used Soviet ideas to create a program Westside lifters have used for decades to move big iron. The program is relatively simple, but it's based on a great deal of research by Lazar Baroga, N.P. Laputin, Dr. Mel Siff, Alexander Prilipen, Alexei Medvedyev and many others.

Staff/CrossFit Journal

Karianne Dickson of CrossFit Bernardsville/CrossFit Morristown works through a 20-minute met-con with ankle and wrist weights

> "Big isn't strong.
> Strong is strong."
>
> — Louie Simmons

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Louie Simmons has created all sorts of equipment to produce big lifts, including the bamboo "bandbell bar." If you don't press in a smooth, vertical path, the kettlebells will quickly pull the bar out of the groove and create chaos.

Simply put, the Westside method comprises a maximum-effort day and a dynamic-effort day: lifters are either working very light or very heavy. The Westside microcycle is seven days long, with the squat and deadlift trained heavy on Monday and light on Friday. The bench press is trained to max effort on Wednesday and for speed on Sunday.

> "The better shape you're in, the faster your new records will come."
>
> — Louie Simmons

On max-effort day, the lifter attempts to hit a PR in a particular lift related to the squat, bench press and deadlift. Westside lifters rarely perform the competition lifts in training because Simmons doesn't believe you can optimize gains by repeatedly doing the same lift and using linear progression, equating that method with reading the same book over and over and never getting any smarter. Instead, Westside lifters will do any one of a number of movements closely related to the three competition lifts, always shooting for a new PR on max-effort day.

For example, squats can be done with all sorts of combinations of bars and resistances and to varying levels of boxes or foam blocks. Bar placement can be changed, as can the stance. A lifter will keep track of his or her PRs for every combination, and each will train to move those numbers higher. Certain variations will prove to have more direct benefits to the full movement and will be emphasized slightly. For instance, an athlete may find that a PR in a three-board bench press will almost certainly indicate an upcoming PR in a competition press.

The constant variation is what allows a lifter to max out all year without losing time to unloading, injury and overtraining, and it certainly has some links to CrossFit's philosophy of constantly varied functional movements performed at high intensity. Not every powerlifting movement is "functional" according to CrossFit's definitions, but powerlifters are specialists who still have much to offer the athlete concerned with broad work capacity and more general fitness.

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Max-effort days should generally have only about 3 reps above 90 percent 1RM, with 2-5 minutes of rest between sets. For Simmons, it's critical to avoid overtraining. He references charts developed by Prilipen and maintains that too many reps above 90 percent will utterly fry the central nervous system and result in poor performance and overtraining.

Following the max-effort lift, athletes perform supplemental exercises such as glute-ham raises, reverse hypers, kettlebell presses, triceps extensions and so on. These exercises are designed to address specific weaknesses in key muscles and should help increase the PR on the squat, press or deadlift. They're generally done with lower reps or to one heavy set of five. Accessory exercises follow, targeting muscles that may not be quite as essential to the lifts but are still important. The reps are generally higher for these sets. The athlete finishes with any other exercises that he or she may require for additional work, and rehab/prehab movements fit nicely here.

> "If you have a high work capacity, a high-volume, high-intensity workout is not as tiring for you. ... This enables you to train a little heavier and longer and a little faster than your enemies."
>
> — Louie Simmons

Speed day is all about explosive power, and an athlete will train to increase his or her rate of force development with a relatively light weight, usually around 40-60 percent of 1RM. For example, a lifter with a 500-lb. squat will do 8-12 sets of 2 reps at 250 lb. (bar and plates only). Fewer sets are needed if bands and chains are used, and 5-6 sets of single deadlifts follow at 45-60 percent of the 1RM. For bench press, a lifter with a 400-lb. 1RM will lift 200 lb. in 8-9 sets of 3, using several different grip widths. Rest between sets is 30-90 seconds.

Bar speed is critical on dynamic-effort day. The idea is to drive submaximal weights with all your power so that you can then transfer that speed-strength to a maximal weight, using power to move the bar rather than just slow, grinding strength. Trained lifters will be able to put a great percentage of their strength into a submaximal lift, resulting in more speed and power. That power can then be transferred to competition lifts at maximal weights.

Following the speed work, athletes perform accessory exercises and any other additional movements, including ab and sled work.

Staff/*CrossFit Journal*

Andy Hendel of CrossFit Charlotte drags a sled through the parking lot as part of Westside's GPP training.

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General Physical Preparedness

Most CrossFitters are not powerlifters, and vice versa, but Simmons is clear that the general physical preparedness CrossFitters chase is critical to success in just about any sport.

"GPP is very important if you want to reach the top," he wrote. "If you are unfit and can't do the proper exercises or do sled pulling, treadmill work or kettlebell work, you will undoubtedly fail."

Let's be clear: powerlifters will not post record Fran times, and they won't be doing Cindy anytime soon. But they do perform box jumps to develop explosive power, and they regularly drag sleds and work with kettlebells in ways designed to improve work capacity and endurance.

Simmons sees GPP as an extension of absolute strength: you have to be able to do more work to be a better powerlifter. If you want to do more work, you have to have a level of fitness that allows you to train at a higher volume.

"GPP raises your ability to do more work by special means. GPP is very common in track and field overseas but is still very much overlooked in the United States," Simmons wrote.

If you focus only on being able to do a few heavy deadlifts, you will simply lack the capacity to do the supplemental and accessory work required to improve the lifts. Progress will stall and the athlete will inevitably be labeled a fat, out-of-shape specialist. Simmons is producing specialists to be sure, but he needs them to have a level of conditioning that allows them to reach their physical potential.

Under the Bar

During practical sessions, Simmons is like a big kid showing you his toys. He's energetic and enthusiastic and passionate, and his athletes/coaches are incredibly patient while teaching the crew how to perform technical powerlifting movements.

On Friday, Simmons goes through all kinds of variations of the squat and deadlift, adding in a bunch of GPP work at the end of the day. Athletes such as A.J. Roberts, Justin Tooley, Bianca Stone and Travis Bell offer coaching tips and teach CrossFitters the finer points of powerlifting. On Saturday it's all about the bench press, with a short nutrition lecture with Chris Mason of At Large Nutrition. Then it's back to more play time with Louie's toys.

Throughout the cert, Simmons is constantly handing out activities for people to try.

2009 CrossFit Games champ Tanya Wagner is assigned 100 triceps extensions with a band, while 2008 Games champ Caity Matter is charged with 200 leg curls with ankle weights. Lauren Plumey has elastic bands around her ankles and is walking on a treadmill with no motor—a "tread sled." Spencer Hendel is using a machine called a "plyo swing."

Over by the monolift, Adrian Bozman is doing five minutes of 225-lb. safety-bar squats to a foam block, with reps coming every 15 seconds. Lance Mosely and Rob Orlando are working on 415 deadlifts with added band resistance. Jesse Ward is carrying a plate-loaded wheelbarrow around the building. Karianne Dickson is doing a 20-minute workout with wrist and ankle weights courtesy of Shane Sweatt.

Staff/CrossFit Journal

It's up to CrossFit's top trainers and athletes to figure out how to use Louie Simmons' techniques to produce fitter people.

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Other CrossFitters are doing reverse hypers, sled drags, box jumps, kettlebell presses, ab work, glute-ham raises, close-grip benches, sumo deadlifts, rack pulls, Zercher squats with a special harness, floor presses and many more movements. Most importantly, they're thinking about ways to use Simmons' techniques to make better CrossFitters.

Some might ask what a man essentially focused on three lifts can teach a bunch of athletes searching for work capacity across broad time and modal domains. The answer is a lot, really.

Simmons is an expert in his field, and he's got an absolute wealth of information to share. He's passionate and experienced. His body bears the scars of experiments gone both right and wrong. He earned his knowledge and is happy to share it, and he had a group of elite CrossFitters buzzing with excitement and looking for ways to incorporate Westside methods into CrossFit training.

Admittedly, CrossFit will never produce a 1,000-lb. squat, and powerlifting will probably never produce a sub-three-minute Fran—but that's no reason to ignore a style of training that's generated a host of world-class competitors. Simmons is sharing a lifetime of knowledge, and it's up to CrossFit's best athletes and trainers to decide how to use that info to produce fitter people.

Perhaps Simmons himself summed it up best:

"It has been asked what training philosophy Westside adheres to. The answer is none ... . We cannot be so arrogant as to form a personal philosophy."

Editors Note:

The Westside program is far more complex than this brief overview, but its essence can be captured in max-effort and dynamic-effort days.

For a complete overview of Simmons' program visit the Westside Barbell website, read ***The Westside Barbell Book of Methods*** *by Louie Simmons or check the* ***CrossFit Journal*** *for upcoming videos from the first Powerlifting Cert.*

✦

Staff/CrossFit Journal

About the Author

Mike Warkentin is the managing editor of the CrossFit Journal. Using Westside methods, Mike, Adrian Bozman and Dan Castillo of Rainier CrossFit will be working toward a 300-lb. bench press. Mike would also like to thank Kurtis Bowler and Steve Slater for going out of their way to help him locate a lost passport in Slater's warehouse full of atlas stones and strongman gear in Lancaster, Ohio.

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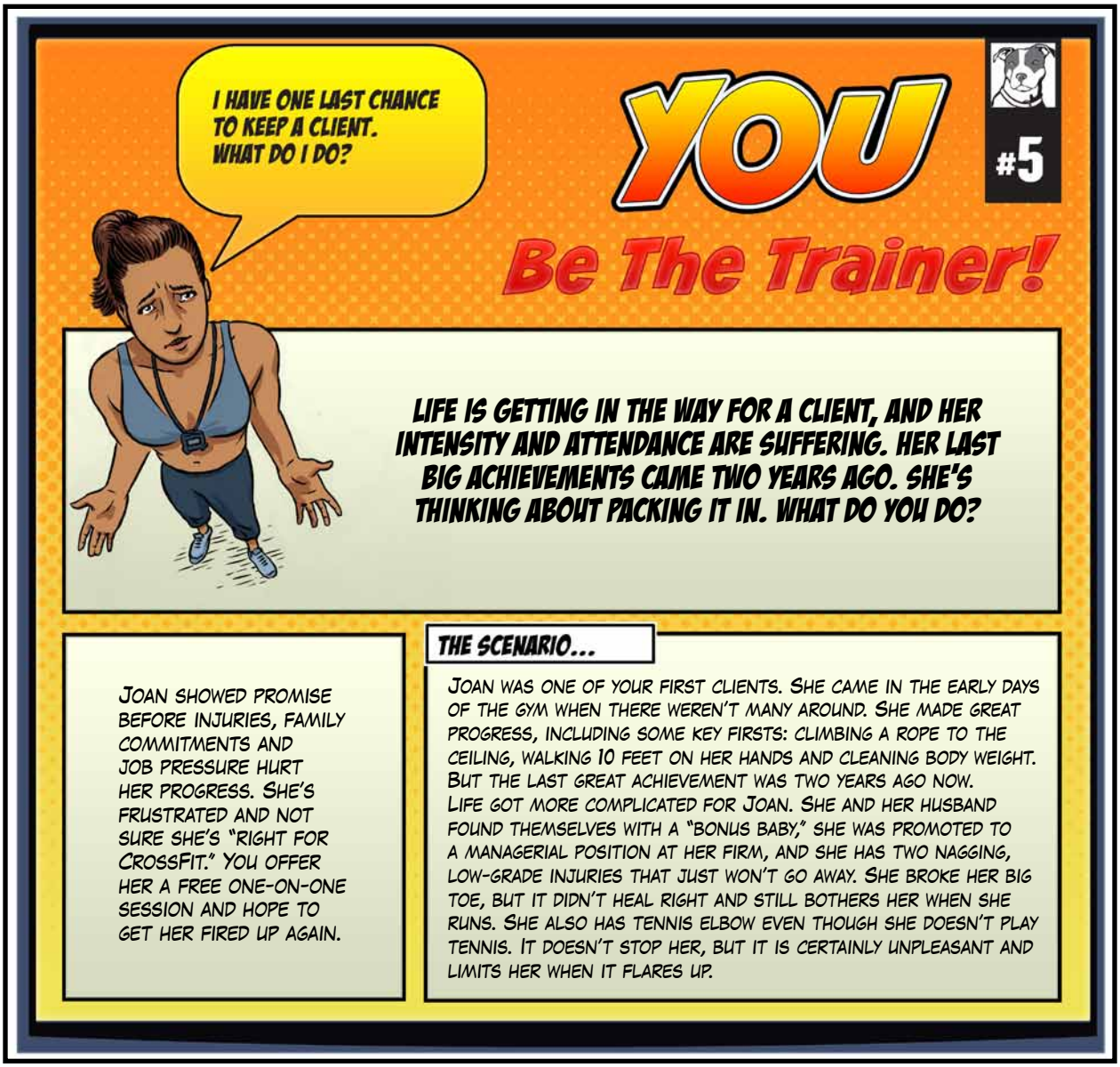

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THE DETAILS

Joan is frustrated. She still comes as often as she can, but it's probably only two times a week on average. She can do most of the workouts you program, though she often scales the weight. You find that she works hard, but not nearly at the same intensity as she did in the early days. You've been reluctant to push her because of the injuries and the lack of consistency. You know she wants to come in more often, but she struggles to manage all the various responsibilities.

Nothing is dramatically wrong with Joan. She's generally healthy—5'3", 122 lb. She eats pretty well and drinks in moderate quantities, but every night. Compared to the broad population, she's nearly a poster child for what the doctor prescribes. But you know she's not satisfied, and she could be so much more.

Her workouts so far this week:

SUNDAY
15-mile bike ride with her 3 kids (her 12- and 10-year-old boys rode their own bikes while the two-year-old girl sat in a seat on Joan's bike).

MONDAY
Two 20-minute (mostly) brisk walks with the dog (he did have to mark his territory).

TUESDAY
Joan was on her way to the gym when she got a call from school informing that her younger son got hit by a baseball. She took him to the doctor, and luckily there was no concussion.

WEDNESDAY
A co-worker left early to get a flu shot, so Joan missed coming to the gym again. She did 3 rounds of 20 squats and 10 push-ups while the fish cooked.

THURSDAY
Joan got her husband to take the boys to school while she brought her daughter to the gym. The workout was Eva (5 rounds of an 800-meter run, 30 pull-ups and 30 kettlebell swings). She modified it to 20 jumping pull-ups and 20 dumbbell swings (a 25-lb. dumbbell hurts her arm less). She had to stop twice to help with her daughter and finished in 51 minutes, just after the next class started. She was visibly frustrated, but you had to get the next class going.

FRIDAY
Nothing.

SATURDAY
You see her at the market. She's pleasant but distant. You ask her what you can do for her. She shrugs and says she's just not sure that she's right for CrossFit. You have to go, but you convince her to come in one more time for a free private session tomorrow.

SUNDAY
What can you do for Joan?

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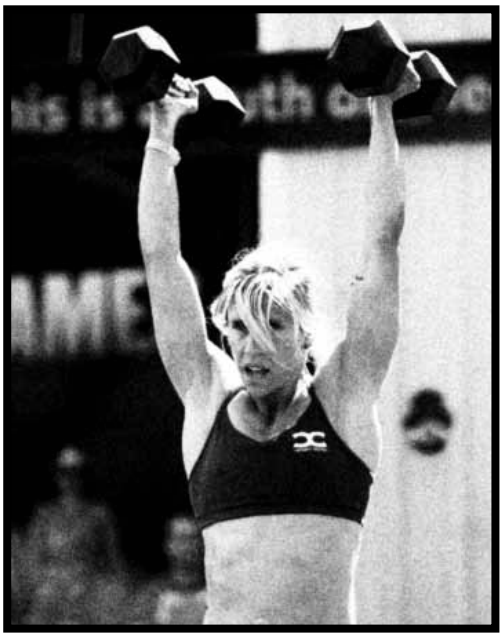

CAREY KEPLER
CROSSFIT CENTRAL

Joan needs some motivation!
I would start our session with goal-setting exercises. We would make some very specific goals with dates attached to them. I would have her start her food log immediately, and I would actually focus on it as a top priority. I would ask her to do a 30-day Paleo challenge, and I would also spend some time making sure she understands what I am looking for and helping her create a meal plan that works with her hectic schedule.

I would require Joan to attend a minimum of two classes a week in the gym. I would work with her schedule by allowing her to notify me if something comes up (son getting hit by baseball) so she could attend another class time. That way she doesn't feel like she has failed if something out of her control pops up.

It's more than likely that Joan can improve her tennis elbow with some nutritional changes and some real specifics as to what she can and cannot do in the gym. I'd minimize movements that can play a role in aggravating her elbow (pull-ups, cleans, swings, loads of push-ups), and I would send her out of the facility with ice on her elbow. My goal here is to get her feeling confident that we are addressing all angles of her wellness. Her attitude about herself and her life will perk up once she starts feeling some relief of elbow pain and the benefits of the fitness program.

But right now, Joan is frustrated. I would have her express her disgust. Why does she have to do this? Why does she have to take care of this now? Why is it so very important that she get motivated? Having Joan vent may open up a bunch of "stuff" we did not know about, and we can get to the root of the issue. She will probably get emotional, and if she does not, then I know we may not have dug deep enough. I need her to really make a note of her purpose. I would also see if having her husband as part of her support system would help, and I'd try to get him and the kids involved in her home workouts (described below) as counters if not participants. Getting the kids involved can also help with the diet. This way fitness becomes a family endeavor.

As far as exercise goes, I will set her up with two workouts a week that she needs to get done on her own anytime during the week, as long as they are completed that week. This is on top of making it to class two times. The first set of home workouts would be as follows:

Workout 1
3 rounds for time of:
400-meter run
30 squats
20 mountain climbers
10 sit-ups
60-second plank hold

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Workout 2
Max rounds in 15 minutes of:
200-meter run
24 lunge steps
12 sit-ups
6 push-ups

Both workouts can be done with no equipment, at the house and in 15-20 minutes. I will encourage her to put ice on her elbow after every workout. (I know this will be hard for her with her time constraints and kids, but I want to emphasize the importance of getting her body completely healthy.)

Now that we have the plan set, we get started with her first workout back. We'll do a warm-up and then a simple workout. The plan is for Joan to feel good about a sweat session and a new set of goals. We want her confident that we are headed in the right direction and that she has a plan set in place for success!

For the warm-up, I'd give her two rounds of 10 squats, 10 push-ups and 10 rotation drills, followed by a dynamic warm-up of high knees, butt kicks, punter kicks, lunges with rotation, skips and side lunges.

The Workout:
500-meter row
25 squats
25 walking lunges
25 sit-ups
500-meter row

Joan now has a plan, a team of support, and hope. She will be back in the game in no time!

Courtesy of CrossFit Evolution

MONIQUE AMES
CROSSFIT EVOLUTION

When Joan comes in for her private session, we will sit down and talk for 20 minutes for re-evaluation. I'll remind her of her goals when she started, her accomplishments along the way, how far she has come (remember when you came here and you couldn't even do a push-up?), and how proud I am of her for sticking to her guns and training despite the added responsibilities of family and work.

I will tell her that it's time to make some changes that will kick-start her progression. She needs to make her health and fitness priorities if she wants to have the energy required to excel at her job, run the household and care for the kids. I'll ask her how tired she is, and she will undoubtedly say she's exhausted. I'll remind her of how much energy she had when she was training regularly.

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Proposed changes:

1. Because of that toe injury, she'll be rowing every time there's running.
2. Her elbow is acting up due to inflammation. Her diet needs to be cleaned up, and the alcohol has to go, except for her allowed three cheat meals. I'd have her start writing down when she eats, what she eats and how much she eats. We'll start tweaking that diet, but first I need to see what she's doing. Let's track it for a week and see what's going on. Also, I'd ask how much fish oil (EPA/DHA) she is consuming daily. None? Let's start now. Start with 2,000 mg, and we'll ratchet it up if needed from there.
3. She can bring her kids if needed. She can bring their books or homework, and they can sit at the reception area. Surely the boys are old enough to keep an eye on the two-year-old. Or we can put her in the child area so Joan can still work out without interruption. We might even try a different class time.
4. I'd set some new goals, such as climbing the rope faster (better technique) or without using her feet, handstand push-ups, getting stronger and more proficient in the clean, and improving technique with the clean and jerk and snatch. There's so much more that she can learn and do.

I'd move on to showing her our new Gymnastics Warm-up, which will surely keep her interested and improve her performance. It'll take her through each movement step by step. This will take 30 minutes. The program serves as both a warm-up and training for new skills. We'll also practice the clean with 3 quick sets of 5 reps at 33, 53 and 73 lb. This is light enough so we can work on technique during the workout. Besides, I want her to get a good workout and feel good about herself afterwards.

The workout will be short and intense because we have spent a lot time talking and doing skill training.

Because people like what they're good at and she needs to feel that she's moving forward, her WOD for today's private session will be as follows:

3 rounds for time of:
15 GHD sit-ups
10 cleans (73 lb.)
1 rope climb (15')

This WOD should take about five minutes to complete. I'd wrap up at the end by asking her when she's coming in next, and I'd tell her that I'll meet her when she arrives. I'd congratulate her on taking the steps to move herself forward.

At this point, I am not terribly worried about the tennis elbow. It is very likely related to mobility issues and inflammation. Based on what she's told me, I'm certain her diet is a leading factor. If her elbow was bothering her at our session, then it is definitely inflammation and she would not climb the rope because of the added stress to the joint. In this case, air squats would be subbed to make the workout a bit more fun. I'd probably prescribe 30 reps per round given her work capacity. If the elbow was really bad (this would come out during the skill-development work earlier in the session), deadlifts would be subbed for cleans.

Again, for everyone we have ever had with an elbow issue, fixing the diet fixed the elbow. It has always been an inflammation thing. In reference to her toe issue, to be honest, I have no idea what to do about that. I would start by subbing running with rowing or the Airdyne, and I would recommend seeing a specialist if it really doesn't improve.

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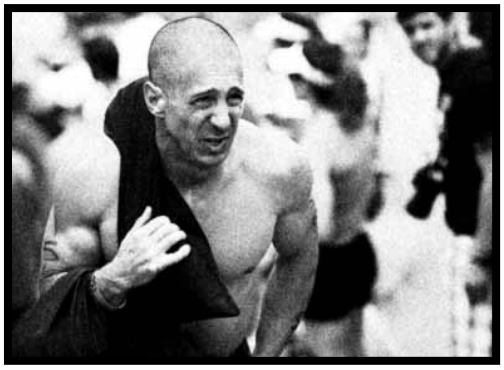

ANDY PETRANEK
CROSSFIT L.A.

My approach with Joan would be to do as I do with a brand new student: get to know her all over again. She is obviously in a vastly different place than she has been in the past. Her life has changed, as have her priorities and goals. It seems to me that she is missing being connected to a coach and/or people in the community who really know her and "get" her now, as opposed to when she first started.

It very well might be that CrossFit isn't right for her now, and I would actually say that to her at the start of the meeting. I would also thank her for being willing to take a closer look at things with me to see if, in fact, CrossFit is still a good fit for her in her life right now.

I would ask her a few questions like:

1. I know this might sound silly because we have known each other so long, but I feel like I need to get to know you again so I can better understand what you're going through. Let's just pretend that we don't know each other and you are coming in to meet me, as a fitness coach, for the very first time. Give me a *Reader's Digest* version of your health, fitness and life up to this point in your life. Even though we know each other, don't leave anything out that you assume I already know.
2. Project yourself one year into the future. Now, we're having a meeting to discuss your new level of health and fitness. What would have to have happened over the course of that year to make you feel happy with your progress?
3. What if we're having that same meeting a year in the future but you're not happy with your progress? What are the things that stood in your way?
4. To get the first set of results that you're happy about, what strengths do you have that will help you get there? What about leverage? Is there anything presenting itself in your life that is making fitness a priority? Do you want a specific result by a specific date, say for an event such as a reunion or anything like that?

These questions should get the ball rolling and might lead to things like frequency of training, specific goals and dates, what other things she might want to be doing in addition to CrossFit (or not), the option of private training, nutrition, etc. If she does, in fact, recommit to CrossFit, one of the most important things to establish in this meeting is the accountability guidelines she's willing to live by (number of workouts in the gym each week, number at home, diet, sleep, etc.). Tightening the reins and setting up clear rules for her to live by, along with consequences for not following these rules, will help get her and keep her back in the game. Having accountability rules is a little like having training wheels: they're there when you lose your balance and ensure you stay upright and moving in the direction you wanted to head in the first place.

I have had the best success with people over the years by always putting things into context for them and allowing them to make choices for themselves about the direction in which they want to head. When I see someone like Joan who has "lost her lust" for CrossFit, in order

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for me to come across as genuine, I feel it's important for me to really understand her and where she is by asking a lot of questions.

Invariably, in asking those questions, specific things will arise in and around her habits, schedule, goals, etc. that I will use to simply point out things that could be tweaked to give her a different result. Now, it's my job to recognize those things as they come up in the conversation and to magnify them in a way that allows her to see things she wouldn't or couldn't have seen on her own. These questions help bring these types of things to light and open the door for more questions and more coaching.

I see myself as Joan's trusted advisor, someone who holds her health and fitness in the highest regard but who isn't the ultimate decision-maker. She is. She must make the final decision about the direction she chooses. When she feels empowered to make that choice, after consideration and reasoning, she will truly be the happiest and best off.

It's my job to present CrossFit in such a way that Joan really understands that for her to get what she wants in terms of fitness, CrossFit is going to be the best option. On the other hand, it is always possible that we decide mutually that CrossFit really isn't best option for her right now. In this case, I can be fully supportive of her and offer my guidance in another direction, gently and authentically. If I do that skillfully, I have someone who is a fan for life. I have also left the door open for her to come back if and when her situation changes. In fact, if Joan left CrossFit I would set a follow-up date three or four months down the road to re-connect with her and check in on her life, health and fitness.

If, on the other hand, our discussion results in Joan being reinvigorated and optimistic about her CrossFit training, I would work with her on the specific details regarding her training frequency (at the gym and at home) and diet, and how, specifically, she wants to hold herself accountable to these commitments. She probably doesn't need special training; getting her reconnected to the local CrossFit community is the most important thing for her ongoing success. Once that happens, she's already proven she knows how to succeed.

THE LAST WORD
TONY BUDDING, CROSSFIT HQ

Joan's predicament is a more complex scenario for trainers. With the great majority of new clients, you know that once you get them doing CrossFit for at least a few weeks, they're going to see results unlike anything they've ever experienced. Your job is to get them through that period safely, effectively and enthusiastically.

But Joan has "been there, done that." Life is complicated, but nothing is really that wrong. There's no crisis to solve, she still works out, and she's still pretty healthy—yet she's frustrated. She can't do what she used to be able to do at her CrossFit peak. PRs don't happen anymore, and she has nagging injuries. Just coming to class ain't cutting it anymore. Joan needs a jump-start. She needs extra help getting back into success. She needs support breaking through the daily obstacles that keep her from feeling great.

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Carey Kepler is a high-energy trainer (she finished third overall in the 2009 CrossFit Games) who walks her talk. She leads by example, and she's tackled many of the same issues Joan is dealing with. Carey has three children herself and is co-owner of a thriving business. She knows Joan has it in her, and she's right there with her to obliterate obstacles.

Carey knows that nutrition has a huge impact on how Joan feels and performs, so that's going to be a huge part of the push. She also needs to get in a solid four workouts per week. At this point, it doesn't have to be fancy. The consistency will have its impact. Carey creates two easily performed home workouts that can fit within Joan's busy schedule. Then, she requires that Joan come in for at least two workouts a week in the gym. Joan must be held accountable.

Finally, Carey also sought ways to bring Joan's family into it. This is obviously a very important part of Joan's life, and if she feels like her workouts take away from her family time, she's much less likely to stick with them.

Monique Ames has a similar approach. Start with the mental game, the attitude adjustment. Name the obstacles and remember the successes. Commit to dialing in the diet. Monique also specifically addresses the nagging injuries. Inflammation, she says, is caused by a poor diet, and it's most likely the cause of Joan's lingering elbow trouble. Fix the diet (with plenty of fish oil), and the elbow pain will leave. That alone could be sufficient motivation to get back.

Monique will also emphasize mobility and skill development with the CrossFit Evolution Gymnastics Warmup and Oly lifting training. Chronic, nagging injuries are often associated with a lack of flexibility. By incorporating learning new skills with improving mobility, Monique will support the fitness gains caused by renewed consistency with more confidence and general well being because Joan will feel better.

These priorities are matched with the orientation of the Sunday session. Twenty minutes to reset priorities, 30 for warm-up and skill development, and 10 for the workout.

Monique also encouraged Joan to bring the family in, at least the kids. Integrating Joan's top priorities increases her chances for success.

Andy Petranek has one goal for the Sunday session: communication. He is going to talk with her and find out exactly where she is and where she wants to be. At the end of the talk, he's fully confident he can advise her into one of the existing tracks within CrossFit L.A. or away from CrossFit altogether if that's really where she is.

Andy has been a successful personal trainer for over 15 years. He knows he can deliver the goods, and he has seen it all. He knows that if Joan can find it within herself to commit to the CrossFit program, she will be successful. But if she can't, Andy is prepared to let her walk away. Sometimes this is the best approach for several reasons: it builds trust (because Andy isn't just trying to sell her his services), it puts them on the same side, it can be a wake-up call for someone not ready to leave, or it salvages a relationship if in fact CrossFit is not the right program for her.

Joan succeeded at CrossFit in the past, and she can succeed with it again in the future if she's willing to give it what it takes.

All three of these trainers know how to keep clients: give them results and provide an environment in which they know they matter. Train hard with functional movement, eat well and be consistent. It's not easy, and there are so many obstacles that can get in the way. Joan needs to recommit and find new levels of success (results) and satisfaction. All three trainers plant themselves firmly in her camp and will be there for her to the degree she's willing to meet them.

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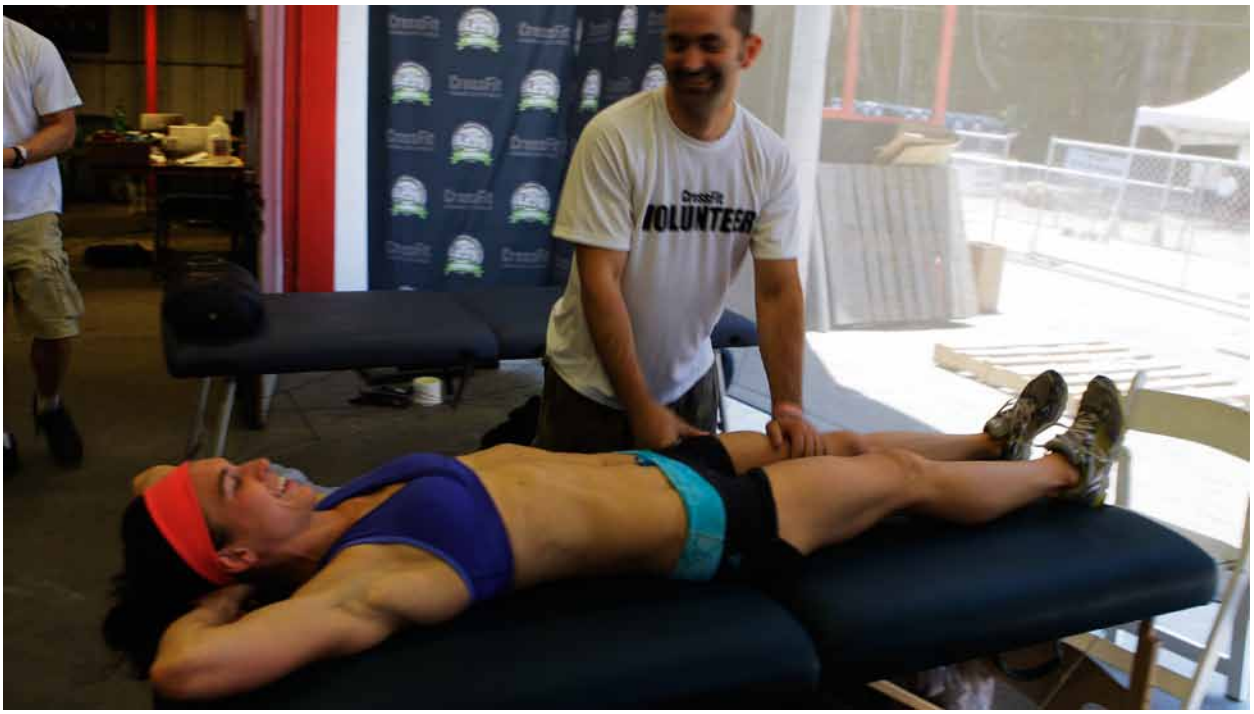
THE CrossFit JOURNAL

Tuning the CrossFit Athlete—Part 2

With several simple exercises, you can create a routine that will improve both your posture and your CrossFit performance.

By Daniel Christie | I Am CrossFit **January 2010**



Staff/CrossFit Journal

In Part 1 of "Tuning the CrossFit Athlete," we discussed how common postural traits are evident in virtually every gym and CrossFit box worldwide.

Faulty posture, known as "upper and lower crossed syndrome," can affect strength, stability and performance and negatively impact our ability to incorporate ideal form into key CrossFit lifts.

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Now we'll show you how to improve your posture and improve performance through soft-tissue release techniques, focused stretches for commonly tight musculature, and gluteal and scapula-retractor activation exercises.

Foam rolling and active isolated stretching (AIS) are my personal techniques of choice to address upper and lower crossed syndrome. No fancy equipment is needed, and both techniques are relatively easy to incorporate into your CrossFit warm-up or do on rest days in front of your television. Foam rolling is a great way to reduce muscle density and deactivate troublesome trigger points that cause muscle shortening and pain and diminish strength.

To get the most bang for your buck when it comes to lengthening common tight muscles, I've included straightforward techniques that don't require awkward body positioning and time-consuming set-ups. The entire foam-rolling, AIS and activation routine should take approximately 20 minutes.

Foam Rolling

When rolling long muscles, roll in sections, always starting closest to your core. For example, when you roll your quads, begin with the area between the mid-thigh and hip, then move on to the area between the knee and mid-thigh.

Complete 4-6 strokes over each section or muscle.

If an active trigger point is located, maintain pressure on that area until the discomfort decreases by 50 percent. If the discomfort does not decrease by 50 percent after 15 seconds, move off the area and then revisit it, applying slightly less pressure.

Active Isolated Stretching

Hold each stretch for a maximum of 2 seconds.

Use reciprocal inhibition to accentuate the stretch response. For example, tighten your quads to improve a hamstring stretch (this works by relaxing the hamstring). You can further improve the stretch with the use of a rope or band.

Stretching should not be painful. You should experience mild discomfort at worst.

Activation

Perform 6-8 repetitions. The idea here is to activate commonly weak muscles without inducing any muscle fatigue.

Perform each exercise at a moderate pace and incorporate a 3-second isometric hold at the end of each movement.

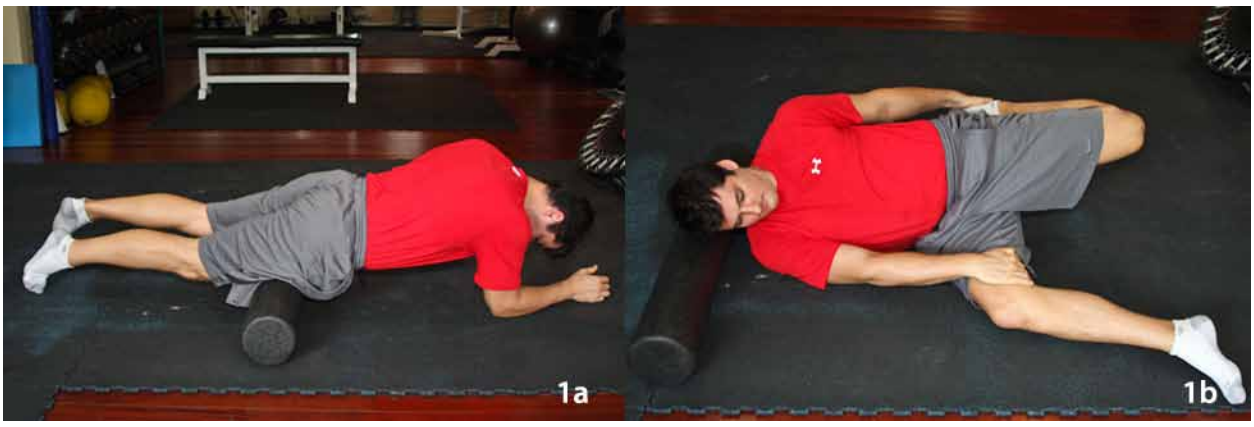
Always perform activation work after you stretch your tight areas.

Sometimes it can be hard to sell the benefits of foam rolling to peers and box members, as it will add another 15 minutes or so on your warm-up. If your approach to "pre-habiliation" and injury prevention is met with resistance due to concerns about time, you can break the routine up into three mini routines.

For example:
Day 1: Quads, TFL, thoracic spine. Activator—bird dog.

Day 2: Pecs, lats, gastroc-soleus. Activator—band pull-aparts.

Day 3: Adductors and external hip rotators. Activator—bird dog.



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Quadriceps

Start with the roller approximately 5 inches down from your hip bones and complete short back-and-forth rolling motions (Figure 1a). Roll the entire length of the anterior leg. This may have to be done in several sections. Caution is needed at the knee: you do not want to compress the kneecap.

To stretch the quads, lie on your side and grasp the front of the foot furthest away from the floor (Figure 1b). Tense your glutes and hamstrings and pull gently on your foot to elicit a stretch in the anterior thigh.

TFL

The tensor fascia lata muscle is commonly fibrosed and loaded with trigger points, especially in people who have tight external hip rotators and weak psoas muscles.

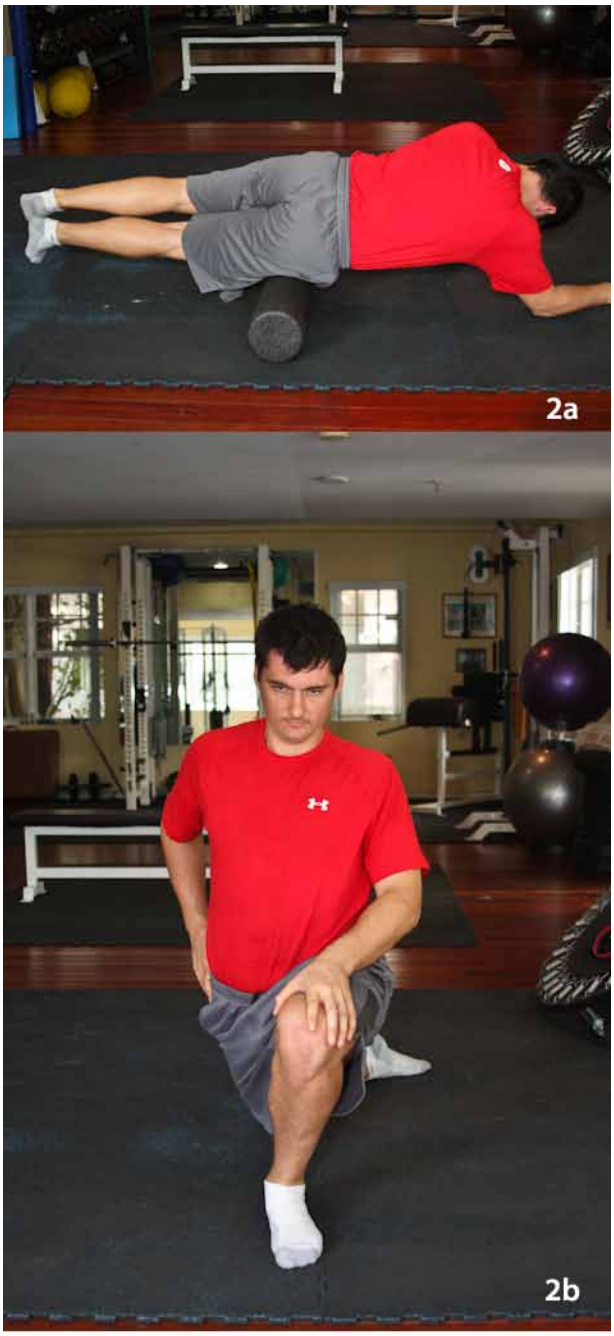
The TFL is not a big muscle, and its location is far more anterior than people think. To ensure you are rolling the correct area, put your finger on the anterior iliac spine and move down and outward 1.5 inches. Now rotate your thigh internally and externally. You should feel a muscle contracting and relaxing. That's your TFL.

You should use short back-and-forth motions to release this muscle (Figure 2a). I tend only to foam-roll the actual muscular part of this area. I don't feel there are any major benefits from rolling the entire length of the IT band as is not a contractile structure and it's very commonly adhered or compressed against the vastus lateralis and/or the biceps femoris. Rolling can compound this problem.

The TFL is a really tricky muscle to stretch by yourself, so I personally developed a technique to open up the anterior hip: the PC stretch. The key to stretching the TFL in this position is the initial set-up (Figure 2b). Notice how the rear leg (the leg being stretched) is adducted and externally rotated. You then lunge forward while trying to keep the hips square. Ensure that you tense the glute max on the rear leg to initiate the lunging motion.

Adductors

I roll the adductors in 2-3 sections, starting around the mid-thigh and moving upward toward the groin (Figure 3a). Fibrosis is generally located in the bottom third of the adductors (where the adductor hiatus and the adductor membrane are located).



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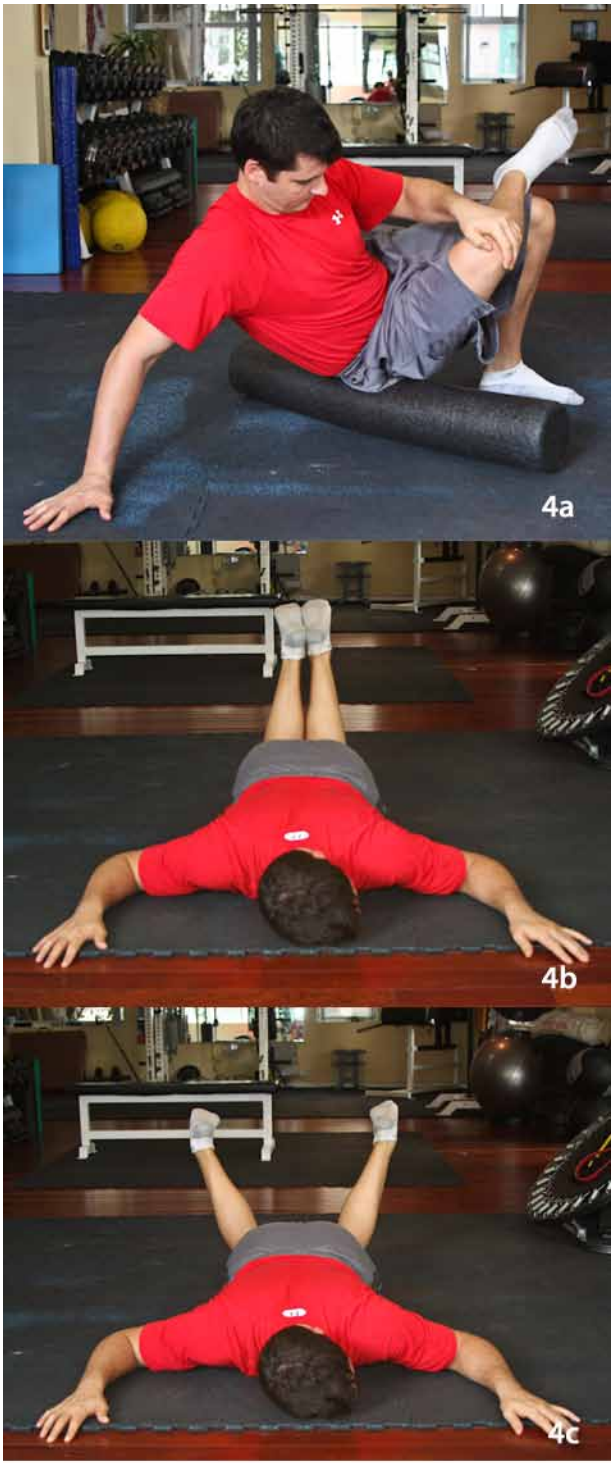
For the stretch, lie on your back with the knee fully extended (Figure 3b). Use a rope or strap around the foot to help produce a stretch and to create internal rotation (toes turned inward). Use your quadriceps and hip flexors during the movement. Aim to lift the leg so your foot is approximately 8-12 inches away from your shoulder (horizontal distance). Use as much hip flexion as flexibility allows. This stretch has its emphasis on the upper region of the long adductor group.

Hip External Rotators

Cross the leg that is being worked to help to expose the rotators more (Figure 4a). Perform short medial and lateral movements over the roller. Ensure that you work from the lateral side of the sacrum toward the greater trochanter (hip bone). If you have well-developed gluteal muscles, you may need to use a tennis ball or small medicine ball instead of the foam roller to achieve an effective release of the external rotators.

To stretch the external rotators, lie prone with your knees together (Figure 4b). Squeeze your ankles together for 2 seconds, then internally rotate the legs to stretch the external rotators (Figure 4c). The heels will come apart but the knees will stay close together.



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Pecs

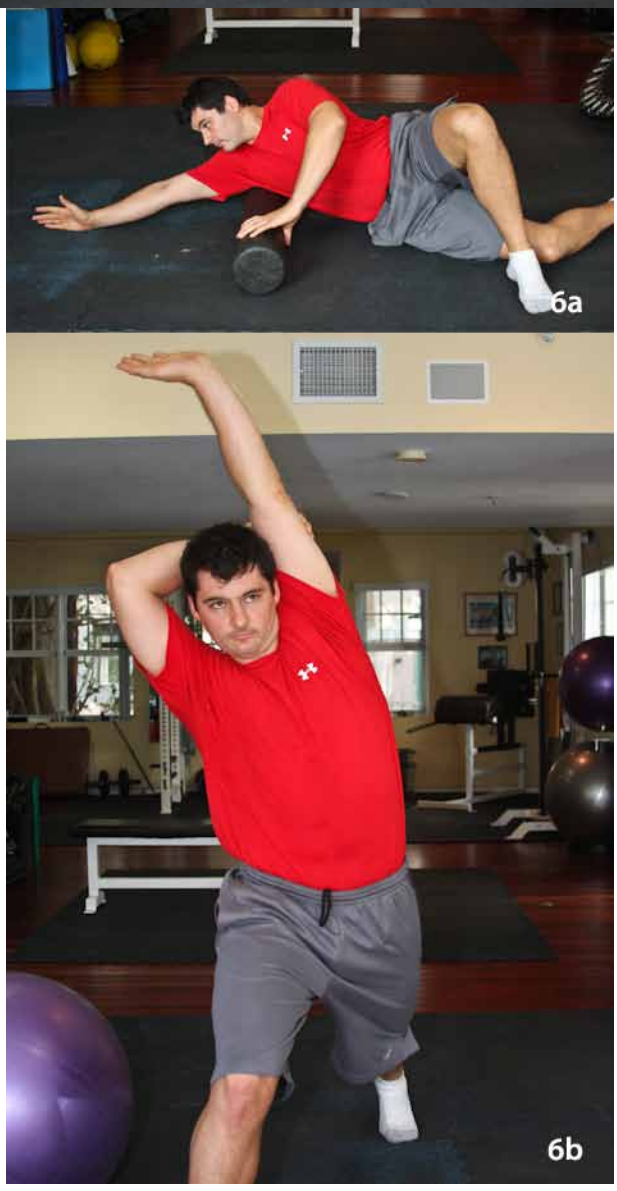
Lying prone on top of a roller, use small diagonal movements to foam-roll the pecs (Figure 5a). This will help to create length in the pectoralis minor. Because this muscle is short in length, it can be worked fully in one movement.

For the stretch, use a gym ball or plyo box (Figure 5b). Place the elbow so it is positioned just higher than the torso. Drop your chest down and back slightly while simultaneously tensing the posterior deltoid and scapula retractors to increase the stretch on the pec.

Lats

Place the roller directly in the crux of the armpit (Figure 6a). Perform short strokes approximately 3 inches in length, and then continue to roll the lower aspect of the latissimus just past the lower part of the shoulder blade. You may need to rotate the torso slightly in order to compress the bulk of the tissue.

I prefer to perform latissimus stretches in a standing split stance (Figure 6b). I feel that this helps to lengthen the lower part of this muscle in and around the thoracolumbar fascia area, and it's a great way of getting an extra little stretch of the quadratus lumborum.



Gastroc, Soleus and Peroneals

Ankle range of motion is of huge importance, and deficits here can cause myriad problems, including quad dominance and poor squat and deadlift movement patterns, to name just a few. Start rolling the calves from the mid-calf to just below the knee (Figure 7a). You will need to roll the outer and medial heads to ensure maximal release. To affect the soleus, you will need to apply more pressure because this muscle is very broad and flat. Again, ensure that you cover the lateral and medial borders.

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Next, start in the middle of the outside of the tibia, directly on the bulk of the peroneals (Figure 7b). Roll to just below the knee joint, and then release the lower end of peroneals, finishing just above the lateral malleolus.

For the stretch, lie supine and place a rope or band over the ball of the foot (Figure 7c). Pull directly downward to get a broad stretch (Figure 7d). Turn the foot slightly inward to place large emphasis on the lateral aspect of the gastrocnemius and peroneals.

Matt Roy

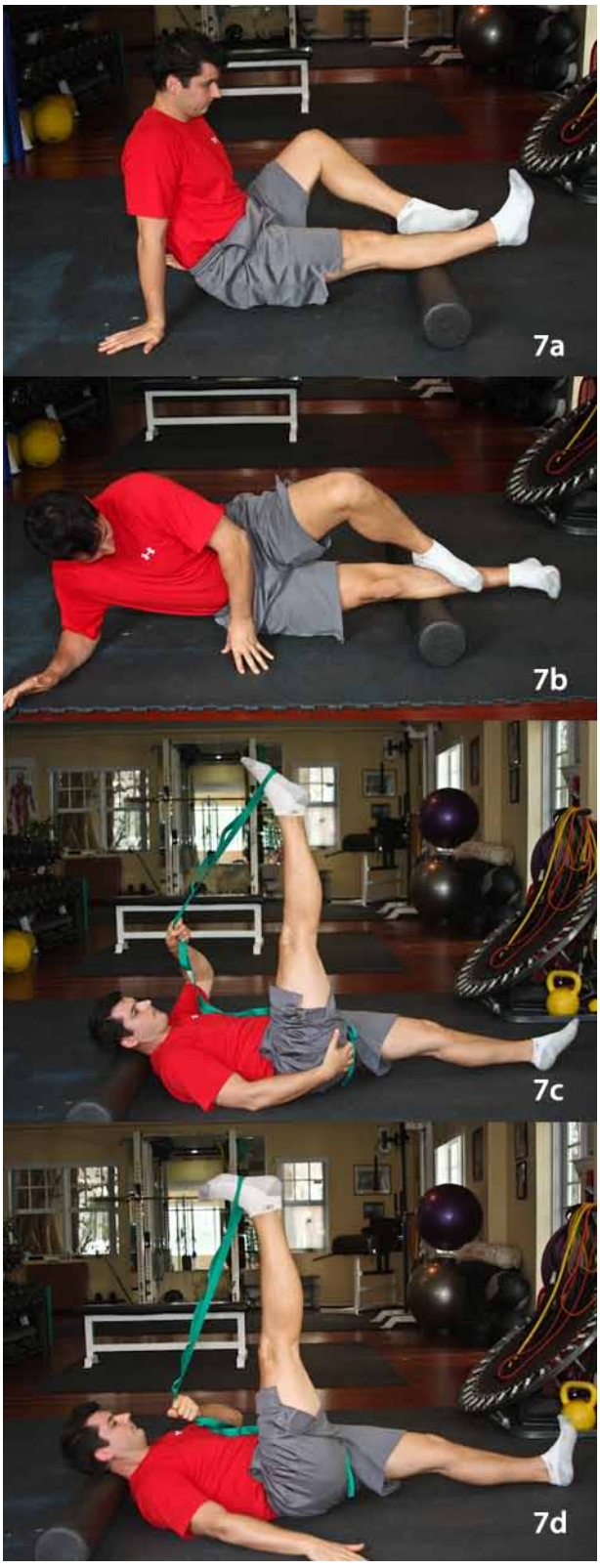
Thoracic spine

Thoracic-spine mobility is key for maintaining healthy shoulders and ensuring ideal form during many CrossFit lifts. Many CrossFitters lose the ability to reverse their thoracic curve, therefore incurring shoulder-impingement type pain and discomfort. This lack of mobility predisposes you to the dreaded upper crossed syndrome.

Place the foam roll or tennis ball at thoracic vertebrae 12 (T12), approximately just below the area a bra would be (if you wear one) (Figure 8). Hyperextend over the roller or tennis balls, then perform a mini-crunch type movement to help mobilize the thoracic spine. Perform 2-3 hyperextensions and mini crunches at each segmental level, and then move down slightly (approximately 1 inch). Repeat this until you reach the top of the thoracic spine, around the top of the shoulder blades.

Muscle activation

Now that you have stretched out those tight muscles and increased mobility of the main trouble spots, you need to activate the commonly inhibited areas. The two simple exercises I recommend are band pull-aparts and bird dogs.



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Band pull-aparts are simple and increase muscular recruitment of the mid and lower traps and the scapula retractors. Holding a band overhead at shoulder width, begin the pull-down movement while pulling your hands apart to activate the required areas (Figure 9a). Once in position, hold for 3 seconds (Figure 9b).

Matt Roy

The bird-dog exercise has numerous qualities. Our intention is to activate the gluteus maximus and shoulder stabilizers (Figure 10). Note the full extension of the diagonally opposite arm and leg, which will help fully activate the glute and shoulder stabilizers. Hold this position for 3 seconds.

20 Bucks, 20 Minutes

If you have postural traits of upper and/or lower crossed syndrome, add this short routine into your existing warm-up, recovery or rest-day sessions. These basic self-help techniques—foam rolling, active isolated stretching and muscle activation exercises—can be used to create a simple routine that will help prevent injuries and minimize current muscular aches and pain. Invest just 20 bucks in equipment and about 20 minutes of your time several times a week so you can maximize your WOD.

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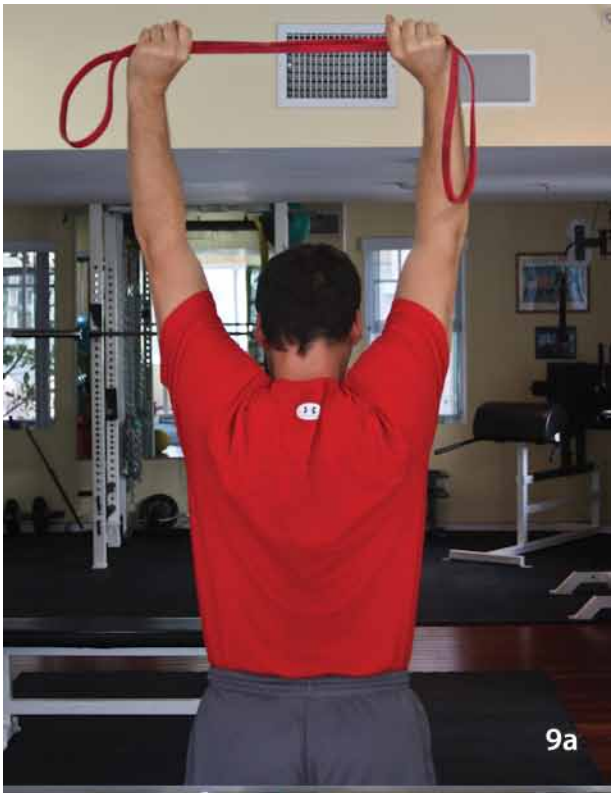
About the Author

Danny Christie is a graduate sports therapist from England. He now lives and works in Miami, Fla., where he continues to attend many manual therapy seminars and trains at I Am CrossFit in Doral. Danny is an advanced myoskeletal therapist and avid student of Erik Dalton's teachings. Visit his website at dannychristie.com, or e-mail him at danny@dannychristie.com.



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THE CrossFit JOURNAL

CrossFit After 40

Allison Belger turns 40 and finds that masters competitions give her a new outlet for her competitive spirit.

By Dr. Allison Belger TJ's Gym **January 2010**

C.J. Rendic/TJ's Gym

I can vividly remember my mom telling me, "So now you have to decide if it is better to have loved and lost than to have never loved at all." I was 24, and her question came shortly after the end of a seven-year relationship with my boyfriend from college.

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That's one way to console heartbreak: go after it with a philosophical question and try to encourage a deeper understanding or higher level of reflection. I come from a highly analytical family, and when the going gets rough, we think and wonder and ponder and try to gain some perspective on things. Maybe I was destined to become a psychologist.

Anyhow, over the course of my 40th "birthday month," as my husband TJ and I call it, I have reckoned with many existential questions and have also had a number of CrossFit-related experiences that have brought to mind my mom's question from over 15 years ago.

Competition: The Fountain of Youth?

Throughout the past year leading up to my 40th birthday, I had been reflecting on many things, as one often does in the face of such a milestone. Beyond the typical musings in which many people engage on the eve of a new decade, I had thought a lot about my life as an aging athlete and how I would continue to challenge myself physically given the constraints of my responsibilities and the realities of my aging body.

It had been a while since my days of competing to win. While winning is nice, for most of us, the prospect of being No. 1 in any athletic endeavor ends with the acceptance of a college diploma. When I ran marathons in my 20s, I certainly wasn't running to win. When I backpacked the John Muir Trail in the Sierra Nevada Mountain Range in my 20s, I wasn't doing it for time. When I took up snowshoeing as a winter sport, I wasn't planning on becoming a competitive snowshoer who could win races.

But CrossFit changes everything. It taps into those parts of our psyches that house competitive instincts and fuel our physical pursuits. It calls upon dormant hormones and startles to awareness the athlete in all of us. With each WOD, we are forced to decide how hard we will push, how fast we will go, how much we will lift, how well we will move. Unlike our contemporaries gliding on the elliptical machines with magazines in hand, we cannot go through the motions of our exercises while thinking about something entirely unrelated.

The intensity of CrossFitting at any level requires an internal dialogue and source of motivation that precludes distraction and disallows a half-hearted approach. It also makes us find a reason to come back and do it again the next time. Simply put, CrossFit is too hard to be a mindless endeavor. It both evokes and requires emotional commitment. Perhaps this is why it also makes us competitive, regardless of our age. After all, competition simply entails trying to do something well—better than the last time or better than someone else. Why would that drive, that emotional involvement, dissipate with age? I'd argue that it doesn't.

Given CrossFit's relative infancy as a sport, those of us at the masters level—loosely defined as 40 and up—are masters athletes *and* beginners. Perhaps it's the combination of excitement about an entirely new way to be fit—truly and finally fit—and the race against time that makes masters CrossFitters uniquely driven to perform and compete. I'd venture to guess that most masters-level swimmers, runners and bikers, for example, were swimming, running, biking and entering races long before they turned 40.

Courtesy of CrossFit Davis

Lorne Sachs of CrossFit Davis found that 44 was as good a time as any to get a new perspective on his competitive cycling training. Masters athletes around the world are discovering that CrossFit provides that same competitive drive.

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In contrast, most masters CrossFitters didn't even know CrossFit existed when they were in their athletic prime. I sense that one of things that fuels us is a desire to get the most out of every minute—to finesse our technique and strengthen our bodies, to become gymnasts and Oly lifters quickly enough to make something of ourselves as CrossFitters before it's too late.

And then there's the feeling we get when we learn something new with our bodies and try to master it in order to be better. Like drinking hot cocoa, it makes us feel young again, creating a physiological response that brings us back to our days on the soccer field with our parents fitfully cheering for us on the sidelines. Along these lines, our bodies' instinctual responses to competition—racing heart, jitters, butterflies—all harken back to the days of our youth when nerves played a major part in so many life experiences.

I felt all of these things and more when competing on the TJ's Gym affiliate team at the 2009 CrossFit Games, one of the most memorable experiences I've had in years. I've already written about that on the Games 2009 site, so suffice it to say that finishing 11th overall under adverse circumstances (our advancing age being just one challenge) was an incredibly powerful experience.

Facing Fran at 40

During my post-Games training, I found myself wondering how I would be able to find a CrossFit goal that would keep me fighting like I had during the month before the Games. I wanted something that would allow me to reach a level of intensity that would lead to some kind of measurable fitness gain or psychologically meaningful experience. At some point, in a state of delirium, perhaps, I decided that I would go for a sub-five-minute Fran.

Let me tell you that I have an absolute hatred of the barbell, especially when it must be thrusted from a squat to an overhead position. It's right up there with 14-lb. wall-balls thrown to an 11-foot target, but that's another story. Anyhow, I decided that a sub-five Fran would be my CrossFit goal for turning 40. I hadn't done Fran since December 2008 at our TJ's Gym Fran Challenge. I managed a 5:43 that time around. The next time our gym did Fran, I was out on injured reserve, rehabilitating an injury from a previous life that surfaced during my early CrossFit days.

At the first of my turning-40 celebrations, TJ announced that I would be going for the sub-five Fran on my actual birthday, which was then three days away. Although

Courtesy of CrossFit Davis

Inspiring masters athletes such as George Condon, 46, are showing that decreased physical capacity doesn't just "come with age." With hard training and a commitment to functional movement, you can maintain high levels of performance once you're over the hill.

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there was a pretty strong voice inside of me saying I hadn't actually trained enough for this goal, I asked for supporters, and they came three days later. A number of gym friends, and, of course, TJ, all did their best to motivate and encourage me through those 90 reps.

It was a stormy, dark Tuesday morning. I hadn't slept a wink the night before, paralyzed by nerves like I hadn't felt in a long time. Even the biggest soccer games of my past had been team events, as were the Games. This was all about me, and it would only last somewhere in the vicinity of five minutes. I'm not a sprinter, I hate the barbell, and I was really not sure I could pull it off.

Long story short, I didn't. I finished in 5:15. I gave it every last ounce of what I had in me that morning and left the gym with my head held high for having tried.

Courtesy of Allison Belger/TJ's Gym

Athletes such as Dave Zeff of TJ's Gym are discovering that numbers on a calendar mean nothing.

It's numbers on the stopwatch that really matter.

Masters of the CrossFit Universe

Not two days after my Fran-at-40 "success in failing," a friend of mine sent me a link to the announcement of a local CrossFit masters event for people 40 and older. I was as troubled by the possibility as I was excited. I've always said there is no way I can hang with the real CrossFit studs in their late 20s and early 30s, and here was a chance to compete as the youngest. At the same time, though, I was reveling in the stress-free training and deep breaths post-Fran, and I was enjoying the lack of nerves and the freedom from the inward focus of my Fran attempt. Still, I knew I had to compete in this event.

I managed to recruit three other TJ's Gym women—fabulous athletes with lighthearted outlooks—to compete with me, which helped immensely. All I knew when I registered was that there would be a run, a strength event and a met-con. Run is great. I like to run and am pretty fast. Met-con is great. I usually do really well on those. Strength event is bad. I hate lifting. I am not a natural, I'm scared to lift, and I don't do it enough. It's my Achilles' heel in a sport defined in many ways by lifting. I figured that as long as I could hang in the middle of the pack on the strength event, I could still have a respectable showing.

When we were finally given details of the workouts, my heart sank. The run would be between 800 meters and 4 miles. Fine. The strength event would be three attempts at a 1RM clean. Fine. Of the lifts, the clean is my best. The met-con: 135-lb. deadlifts and 14-lb. wall-balls with burpees mixed in. Burpees—great. Deadlifts—not so great, but after blowing through 30 reps at that weight at the CrossFit Games this summer, I was fine with them. But those freakin' wall-balls? This felt like some kind of sick joke!

Finally, the day of the competition arrived. Although I was not nearly as nervous or uncomfortable as I had been in anticipation of Fran, I had a somewhat sleepless night the evening before.

A couple of people mentioned that they expected me to win, which didn't actually feel good to hear. Did they expect a win because I was bound to be the youngest? Or was it because they actually thought I could pull off strong performances regardless of my age? Such forecasting leads to pressure to perform, and that was the last thing I wanted.

Courtesy of Allison Belger/TJ's Gym

The masters athletes from TJ's Gym after the run event in Walnut Creek. The author, second from the right, finished first in the WOD.

After we arrived at CrossFit Sweatshop in Walnut Creek, Calif., we were finally briefed on the run. Turns out the distance would remain a mystery. All we were told is that it would be between 800 meters and 4 miles. Not knowing the terrain is challenging enough; not knowing the distance of a race is sheer torture.

As I looked around at the field of competitors, I picked out the one I thought would beat me overall. She was ripped. No body fat. Lots of muscles. She looked like a flat-out athlete. When she whipped out a set of butterfly pull-ups in her warm-up, I was convinced I was going down. I knew I had to beat her on the run if I was even to contend with her at all.

On most runs I can get out of my head and let my thoughts run free, but this one was all about the mind. I made the mistake of anticipating the end of the run three too many times, sprinting in as though I was at the finish line, only to learn there was much more to come. It was brutal, but I ended up taking first and beating my targeted competitor by over two minutes.

Pushing for the Win

During my warm-up for the next event, I threw up some warm-up lifts at weights I had struggled to manage only two days before in practice. My judge told me I had to start heavier. I told her that she didn't understand, that I suck at lifting, and that there was no way. She wasn't having it.

I was talked into a 113-lb. start and made it like it was 95. Then I was talked into 123 lb. I had never even attempted more than 118 and had never made more than 115. It seemed ridiculous, but I went for it. Got it—and again it was easy. Still doubting that this was really happening and being conservative, I asked for five more pounds for my final lift. That was 128—a couple of pounds over my bodyweight. My arms and legs were shaking with nerves, adrenaline and lord knows what other competition-evoked chemicals. I went for it and made it and jumped up and down in a group hug with my teammates!

So far, I had beaten the woman I had pegged as my competition by over two minutes in the run and 13 lb. on the clean, so I was in the driver's seat. Uncertain of the mathematical possibilities based on the scoring system, however, I told myself I had to win my heat in the met-con in order to secure an overall victory.

After "3-2-1... Go!" we were deadlifting. Another long story short: we headed into the final set of wall-balls with her two ahead of me. I'm not sure how I did it, but I passed her on those wall-balls and beat her by 10 seconds. I ended up with the fastest time on the met-con, male or female.

I was flat on my back, deep in recovery, when it dawned on me that I had just secured a victory. It felt great. I could literally feel the nerves, the stress, the strain and the not-knowing leaving my body. It was over—I had

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busted my butt, and I had won. Another competition over, adrenaline rush complete, almost time to move on again. But first I got to stand on a big old box and hold the hands of the women who took second and third places.

You can watch a highlight video of the event here.

Victory—So What Now?

So, what is the point of my writing this, and what does any of this have to do with my mom's question some 15 years ago?

We are all faced with opportunities to move out of our comfort zones and lay it on the line in a public forum, whether in athletics or in some other venue. Is it better to have fought and lost (or won!) and experienced it all than to never have known the feeling of trying? You will never know unless you put yourself out there.

Before the masters event, there was a lot of talk at our gym about who would compete, with people saying things like "What would be the point?" "I can't win," or "I'm too old." Had we as an affiliate team decided not to compete at the CrossFit Games because we were too old and underprepared, we would have missed the experience of a lifetime.

Had I not gone for Fran on my 40th birthday, I never would have felt the elation that can come from a failed attempt that is actually a massive success in disguise. Had I not competed at the masters event for fear of losing to a stronger, more confident 40-something woman, I would never have experienced the grit of that day, the power of my nerves, and the overwhelming feeling of cheering on fellow athletes and having them do the same for me. These experiences were all well worth the fear, the pain, the nerves and the lost sleep.

As we age, there are fewer and fewer opportunities for athletic competitions. Of course, many sports have masters divisions acknowledging the inevitable physical declines in bodies over time, but these are not always available. Besides, age often brings an increase in responsibilities, less time and energy to focus on training, and a decrease in the competitive drive.

Or does it? Perhaps this perceived decrease in drive is simply a byproduct of having fewer venues in which to compete with like-bodied athletes. A woman at our gym recently turned 60 and busted out 16 consecutive unassisted pull-ups to celebrate (watch the inspiring video here. I dare say that if she were in a room with other 60-something CrossFitters going after a workout, she'd have a fire within her that's no less intense than the ones raging inside much younger athletes.

Courtesy of Allison Belger/TJ's Gym

Deirdra Rodgers celebrated her 60th birthday by doing 16 consecutive pull-ups at TJ's Gym, proving competitive fires fuel self-improvement as well as masters competitions.

Or perhaps the decline in competitiveness is a realistic and sensible internal response to an outside situation that is out of one's control. When I was 25, I used to care a whole lot about how I looked, what clothes I wore, how attractive I was compared to others at a party or bar or other social venue. While I still care how I look, I certainly don't compare myself to 25-year-olds, and I also don't have the time, energy or availability to focus on something much less important than getting my kids to school on time or squeezing in a workout before getting to work. Maybe it's the same with the decline of the competitive spirit.

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On the other hand, just today I was talking with a 24-year-old superstar, a coach at our gym, who has been CrossFitting for well over a year but only recently with much intensity. This woman is a natural athlete, but she holds back. That's allowed me to retain a number of spots on our leaderboard, but I have found myself frustrated by her seeming lack of passion and focus. In my mind she could be great at this stuff, but she doesn't seem to care.

As we talked about this very topic, I realized that perhaps I have the drive to improve at CrossFit because I know the clock is ticking: at some point in the next couple of years, my performance will plateau and my learning curve will level off as gains in technique are outweighed by the forces of aging. She, on the other hand, has time on her side, so what's the hurry?

Maybe, then, we older CrossFit athletes just need more masters competitions, or at least masters divisions to feed our competitive drives and force us to reckon with the reasons we might hold ourselves back. It's easy to say, "I'm too old." It's harder to say, "I just don't think I have the determination or focus for this," or, "Frankly I don't think I can work that hard."

Maybe we should be careful what we wish for, because if there is a masters division in CrossFit, we'd have one less excuse for not competing.

I say bring it on!

✦

Courtesy of Allison Belger/TJ's Gym

About the Author

Allison Belger lives with her husband, TJ, and their two young daughters in Marin County, Calif. They own and operate TJ's Gym, with two CrossFit affiliates up and running and a third set to open shortly. Allison is a clinical psychologist specializing in assessments of children, adolescents and young adults. She juggles management of the family business, her private psychology practice and her role as mom.

Although Allison recently began fitness coaching after finding CrossFit in 2008, she has a long history of involvement in athletics, as both a player and a coach. Allison played soccer at the Division I level in college and has since coached a number of youth soccer teams in the Bay Area. Allison has a bachelor's degree from Dartmouth College, a master's in learning disabilities from Northwestern University, and a doctorate in clinical psychology from the Wright Institute in Berkeley, Calif.

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