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the CrossFit JOURNAL

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Featured CrossFitter - Jolie Gentry

"CrossFit women rock!" This sentiment resonates with both men and women. CrossFit women are redrawing the boundaries of performance and having a blast doing it. In fact, their awe-inspiring performances have been instrumental in conveying CrossFit's efficacy to the free world's military. It wasn't the male fire-breathers that did it. It was the women. As one Naval Special Warfare operator said, "It's easy to write off to genetics the performances of a CrossFit male, but it's a whole different ball game when a five-foot-nothing, high school pottery teacher at the local hippie high school cleans your clock." That statement continues to resound across the military and fitness world.

In this feature and interview, we learn a little more about Jolie Gentry, the winner of the inaugural CrossFit games. We already know she can run, lift, row, pull-up, and jerk with the best of them. Now see some other sides of her.

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Jolie Gentry

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Jolie Interview

1. Explain your introduction to CrossFit.

Two Santa Cruz County Deputies I met at Basic SWAT school in September 2006 talked about this guy on their team who was "a machine" and just ran circles around everyone else on their SWAT team. They said that his name was Greg Amundson, and he does this stuff called CrossFit. They knew I was interested in fitness and said that I would probably like it. After I returned from school, my teammate Darryl told me that he had just started training at One World Gym in Union City where there was a cop who ran CrossFit classes. The first day I walked in the door, I realized that the cop he was talking about was Freddy Camacho. I've known Freddy for years. In fact, he had been a student of mine in a group cardio class that I used to teach at a martial arts school.

2. What, if any, were your biggest apprehensions before your first workout?

I cannot recall having apprehensions prior to my first workout of the day. I do remember that it was a 6:30 a.m. class and it was the most intense workout I had ever experienced to date. I also recall the others in the class asking Freddy, "Where in the hell did you find this chick?"

3. What would you say to a woman who may be interested in the program but has concerns like "I don't want to bulk up," "I'm not strong enough," or "I'll never be able to do that"?

For those women who are worried about bulking up, just take a look at the CrossFit women who have been training for a while. I don't know why you wouldn't want to look like them.

I always hear, "I have to get in shape before I can try that stuff." I hear it from both men and women. I just tell them that everything can be modified and they will be surprised how quickly they will start achieving their strength goals.

Jolie Gentry

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4. What do you do for a living?

I am a police officer for the city of Newark, which is in the southeast corner of the San Francisco Bay. I work patrol and I am a SWAT operator for our on-call team. I am also the fitness specialist and a Hazardous Materials/Weapons of Mass Destruction instructor on the team. Basically, if there is some crazy biological weapon released upon the city of Newark, I will help coordinate my team's response. I will more than likely recommend that we don't go anywhere near it! Unfortunately, they probably won't listen to my recommendation.

5. Why did you choose that profession?

I chose my profession for reasons similar to why I choose to CrossFit. I enjoy the challenge. I love that I never know what to expect. There is always something new and different to overcome. I am never bored at work, and I need to be prepared for the worst.

6. Do you think CrossFit has an empowering effect on women?

Absolutely! Particularly when I see women lifting heavier weights than men and hitting faster times. I know they feel good about that. (Stef, you know I'm talking about you!) I think it's empowering even for the beginners who realize that exercises like the deadlift aren't scary things that they could never do. And I know many women who never dreamed of doing a pull-up and now pull ten in a row. Most men can't pull ten in a row, so there's definitely a confidence that develops from being consistent with CrossFit.

Pre-CrossFit modeling shoot

7. What made you choose CrossFit as your primary means of training?

I CrossFit because it has completely changed my body, and I love the daily challenge. I am in the best shape of my life because of it. Being a naturally competitive person, I also enjoy the sport aspect.

One year of CrossFit later

Jolie Gentry

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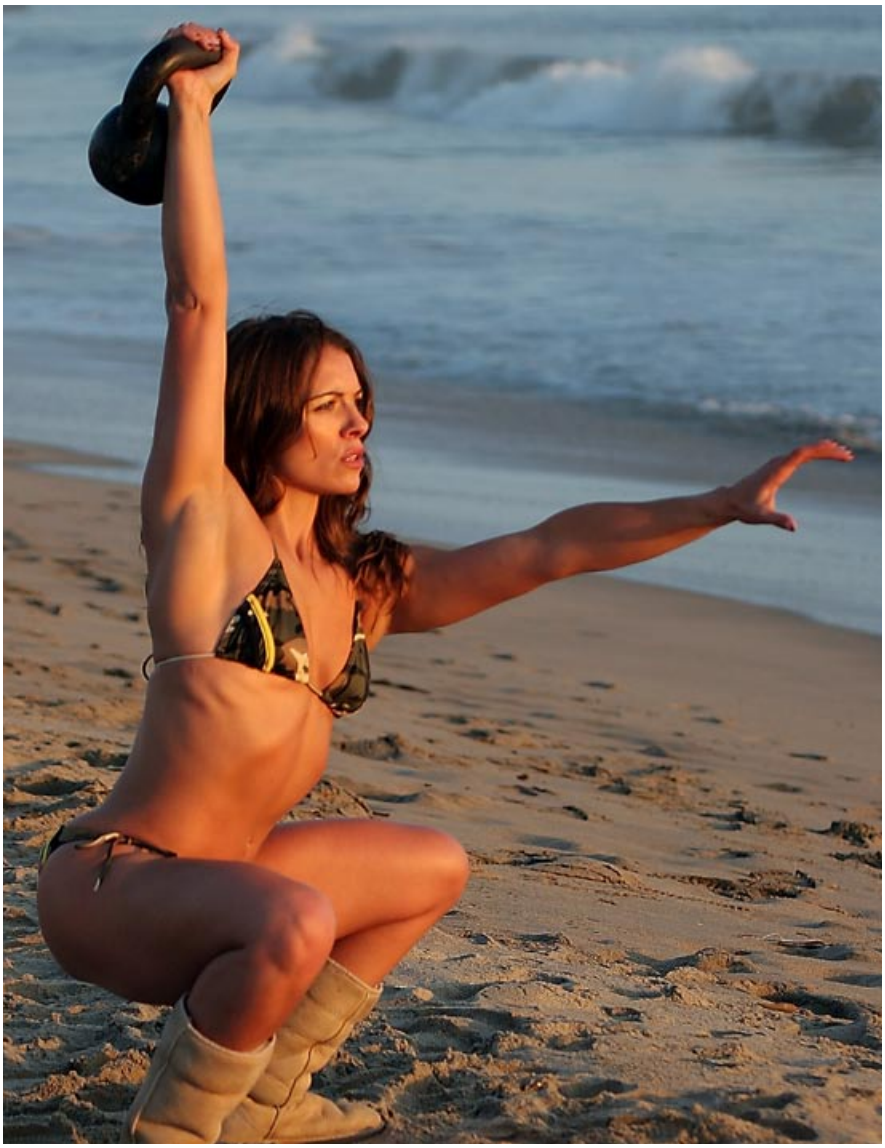

8. Some people seem to think that physically outperforming men makes a woman "masculine"--or at least less "feminine." What's your take on that assessment?

I adamantly disagree with that statement. It's up to the woman to decide if she wants to identify with being feminine. I do not see it all being directly related to her performance. Not all women accent their femininity, and I don't think that has anything to do with how hard they train. I enjoy being feminine because that's just me. For me, it's entertaining to be a bit of a contrast. I like being the SWAT operator with the French manicure who can hang with the boys on the range and can have just as much fun shopping with my three sisters.

Jolie's stats

"Fran": 3:41 (65-pound thrusters)
"Helen": 10:17 (35-pound kettlebell)
CrossFit Total: Squat 190, press 100, deadlift 235; total 525 pounds
Max pull-ups (single set): 40
Weighted pull-up (1RM): 88 pounds
Height: 5'4"
Weight: 124 pounds

Jolie at work - Videos

Online Video
Bear Complex WOD
http://media.crossfit.com/cf-video/CrossFit_TheBear.wmv
http://media.crossfit.com/cf-video/CrossFit_TheBear.mov

Online Video
Snatch/OHS/Pull-up WOD
http://media.crossfit.com/cf-video/CrossFit_SnatchOHSPullupWOD.wmv
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Online Video
Diablo vs. One World
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Online Video
CrossFit Games Award Ceremony
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Double-Leg Takedown for Submission Wrestling

Becca Borawski

This month we continue working with world champion grappler Valerie Worthington. Valerie has trained extensively in both gi (wearing the traditional kimono) and no-gi grappling techniques and has chosen a few of her favorites to share with us.

Many jiu-jitsu schools, either because of size restrictions or because a large focus of the curriculum is on the ground game, do not spend much time working on takedowns. Frequently, grapplers interested in competing in submission wrestling (sometimes also called no-gi jiu-jitsu) have to seek takedown knowledge from wrestling and adapt it to their jiu-jitsu game. The double-leg takedown we present this month is one of the wrestling takedowns Valerie has found to be useful in her matches.

Jiu-jitsu matches begin from the feet, with both opponents facing each other, feeling each other out for a takedown. One of the more common takedowns is the "double-leg" takedown, in which the attacking grappler shoots in, traps both legs of the opponent, lifts them off balance, and then drives them to the ground.

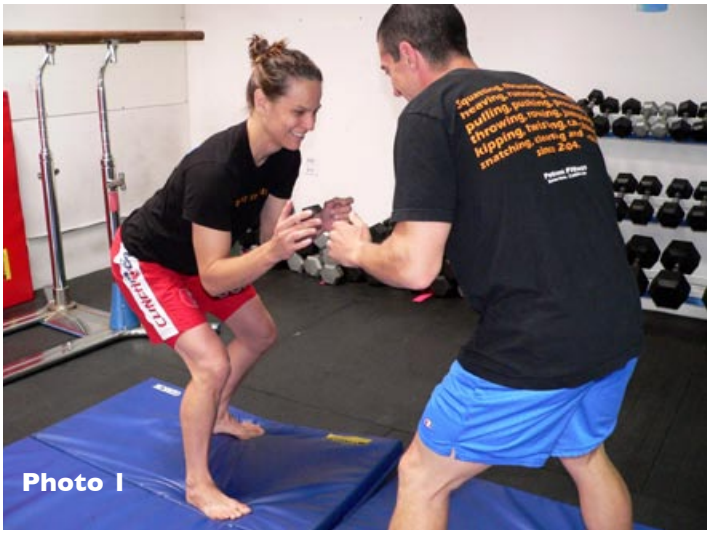
Photo 1


Photo 2

To begin, both grapplers are in a standing ready stance, with legs bent and elbows tucked in, prepared to drive forward or jump back as quickly as needed. This position benefits greatly from the development of a good powerful squat. Being able to move quickly up and down, side to side, and forward and back keeps grapplers safer from attack and enables them to mount a fast offense (photos 1 and 2).

When Valerie feels the timing is right, she initiates her takedown by doing two things: coming up underneath her opponent's hands to trap them and, at the same time, stepping inward. She achieves both of these movements by dropping her level. Essentially, changing one's level means raising or lowering the hips. It is not leaning forward or bending over. She keeps her torso erect and her hips underneath her, while dropping her hips down and in toward Andy. At the same time, she is pushing her hands upward underneath Andy's wrists (photos 3 and 4).


Photo 3

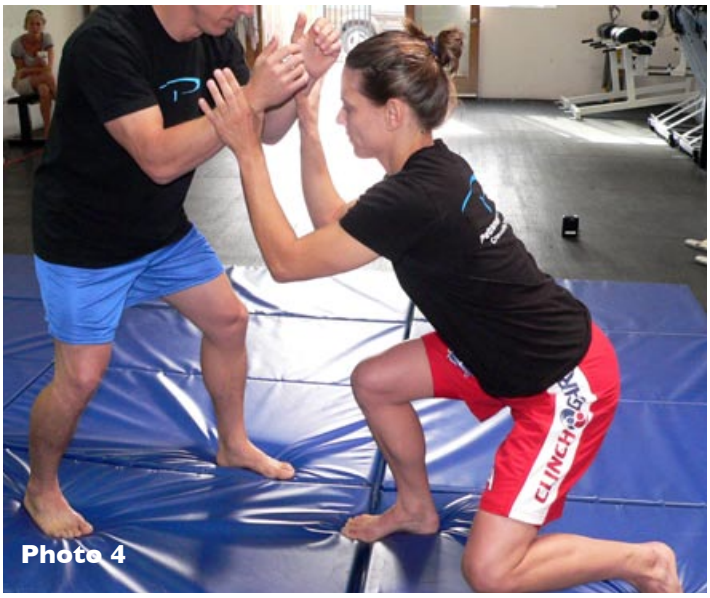
Photo 4

Double-Leg Takedown for Submission Wrestling

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Photo 5

Photo 6

After Valerie has lowered her stance, she will take her penetration step. This means she will continue moving herself toward Andy, rolling her right leg forward onto her knee. She goes from being on the ball of her foot, moving forward in the same line, onto her knee. Her shoulder is now pressing into Andy's abdomen, her right knee is between his feet, and she has placed her hands on the backs of his legs.

Valerie's head is tight to his torso and her neck is reaching up and to the right. The placement of the neck is important at this juncture to prevent Andy from reaching down and executing a guillotine choke. Mixed Martial Arts fans have seen many decorated wrestlers come into the world of the UFC and promptly get choked out due to not paying attention to this moment in the double-leg takedown (photos 5 and 6).

Valerie now prepares to "turn the corner." She prepares to do this by taking her left foot, which is behind her, and stepping it out to the side. This is going to provide her with the ability to drive up and to the right. One of the common mistakes with beginners learning this takedown is not turning the corner. It is much easier to take down an opponent by driving them at an angle, as opposed to straight back (photos 7 and 8).

Photo 7


Photo 8

Double-Leg Takedown for Submission Wrestling

...continued


Photo 9


Photo 10


Photo 11


Photo 12

Next, Valerie raises her level by standing, but she does not stand straight up. She comes up and to her right side. She pushes off from her left foot, while driving her shoulder and her head to the right. She lifts Andy's right leg up as she does this. By raising his leg while driving her body to the side, Valerie can take Andy's balance. By moving him back at an angle, Valerie has successfully "turned the corner" (photos 9 and 10).

Now she continues to walk Andy back in the angled direction while lifting up on his left leg. She does so as forcefully and for as much distance as she needs to in order to take his balance and bring him to the ground.

By separating herself from Andy while he is going down, Valerie is able to land the takedown in side control. If she were to stay tight to his body throughout the movement, she likely would have landed between Andy's legs, also known as being in his guard. If Andy were a knowledgeable jiu-jitsu fighter, this could be dangerous. In a side control position, though, Valerie is in the advantaged position and has the ability to set up her ground game offense.


Photo 13

There are many examples of fantastic double-leg takedowns in the world of mixed martial arts. Because many collegiate-level wrestlers have moved on to the world of fighting, there are a number of fighters with a high degree of proficiency and explosiveness in takedowns. Examples of fighters to look for include Matt Hughes, Kevin Randleman, and Josh Koscheck.

Becca Borawski, CSCS, teaches and trains at Petranek Fitness/CrossFit Los Angeles in Santa Monica. She has a master's degree in film from the University of Southern California and a background in martial arts training. She has blended these skills to produce DVDs and build websites for professional fighters. She currently trains Brazilian Jiu-Jitsu with Rey Diogo, a Carlson Gracie affiliate.

Valerie Worthington earned her Brazilian jiu-jitsu purple belt from Carlson Gracie and Carlson Gracie, Jr. She currently trains at the New Breed Academy in California. A dedicated member of Petranek Fitness/CrossFit Los Angeles, Valerie was a gold medalist at the 2007 World Grappling Championships in Turkey.

Sandbag Training

Brian Jones

Sandbag training has been around as long as there has been manual labor. Even in our industrial age, luggage, duffels, and those huge bags of dog food, concrete, or potting soil don't get onto the shelves or into our cars by themselves; someone has to put them there. In attempts to make fewer trips from the car, we tend to carry our grocery bags into the kitchen in strange and creative ways. Finally there are times when the real-world item is actually a sandbag, as in the case of flooding or military fortification. So as unusual as it might be to see a sandbag in your gym, it is one of the most functional pieces of gear you can get. And one of the least expensive.

This article introduces sandbag training and equipment and the fundamental lifts. In the next one in the series, we will take a look at some more exercises and combinations and some ways to integrate sandbag work into your CrossFit training.

Why sandbags?

Let's take a closer look at the training stimulus that the sandbag provides relative to the more traditional barbell. The first issue comes with how to grip it. Asked to lift a barbell, the average untrained person won't stare at it all too long before taking a relatively symmetrical grip and giving it a good heave. The lifting mechanics may be all wrong, but there is usually little problem with the grip itself. This is not so with the sandbag. Even a well-trained athlete who has never done any sandbag work will often look all around it, spread and gather it, grip and re-grip it. In addition, he or she may re-grip it mid-rep or change grips over the course of a set as the hands and arms tire. Sandbag lifting provides an entirely different, unique grip challenge and strengthening.

A second feature of sandbag training that differs from barbell work is the level of instability. Unless you've loaded the bar improperly or are working with extremely elite-level weights, the load on the bar does not shift or wobble unexpectedly. During a sandbag rep or set the load may shift substantially from one side to the other, sag in the middle, or otherwise try to escape your grasp. Such shifting forces your core and stabilizers to work overtime in an attempt to get the weight back under control. You will be forced to work considerably harder to control a given load.

There is a difference between the instability of sandbag work and the type of instability training involving tiny dumbbells and extremely unstable bases. That difference is the load. It has been shown experimentally that the threshold for strength adaptation is around 60 percent of 1RM (one-rep maximum) for trained people. The intensity is lower if the goal is muscular endurance or strength work for a detrained individual. As the instability of an exercise goes up, the allowable load will go down. (For a good example of this, see the CrossFit video "Sandbag Grace," at right.)

Many of the new fitness implements on the market provide so much instability that the loads must be dropped below the adaptation threshold. They are good for balance work only, not strength development. Moreover, an attempt to use increased loads with them also increases the likelihood of injury. Sandbag training's instability is significant but it doesn't limit loads to below strength development thresholds. In fact, over time, the load may be increased a great deal without a substantially higher risk of injury. All you have to do is dump the bag if you get in trouble.

Buying vs. constructing

Sandbag-type items are common in daily life and can be found all around. However, for repeated gym use, you will need something especially sturdy and durable. Your first option is to buy a sandbag kit. Ironmind has a nearly indestructible sandbag that can be filled to a weight as heavy as you'll likely ever need. Several other companies have come out with different types of sandbags as well, but I have noticed that some designs actually defeat the purpose of the training by making them more stable and easier to lift. These tools are semi-useful as "soft barbells'" but sort of miss the point. The same is true of using loose heavy bags or grappling dummies: you can get a good workout but will miss out on much of the grip and stability training.

Your second option is to make your own sandbags. You'll need a sturdy duffel or pack (think military surplus), some heavy-duty contractor-grade plastic trash bags, duct tape, and sand. Put the sand in a bag, remove the air, tie it off, and tape it. Put this bag into another bag, tape it, and then put this double bag into a third bag and tape it. Slide this three-layer interior bag into the duffel, clip it closed and tape it if you feel the need. I have a sandbag I made this way that I've used for three years with no leakage. However, this isn't the only way to make one, and different methods yield different products, so feel free to experiment.

It is possible to make adjustable weight bags but considering the cost it has always seemed better to me to just make several bags in 25- or 50-pound increments (the usual weight of bagged sand) and be done with it. This isn't an exact science, and I'm not sure if sandbag training is the best place for microloading. In my experience, most women will use a 25-to-50-pounder and men a 75-to-100-pounder. The actual load should depend on fitness, experience, exercises, goals, and reps.

Online Video

Sandbag 'Grace'

http://media.crossfit.com/cf-video/CrossFit_SFBagOfGrace.wmv

http://media.crossfit.com/cf-video/CrossFit_SFBagOfGrace.mov

Sandbag Training

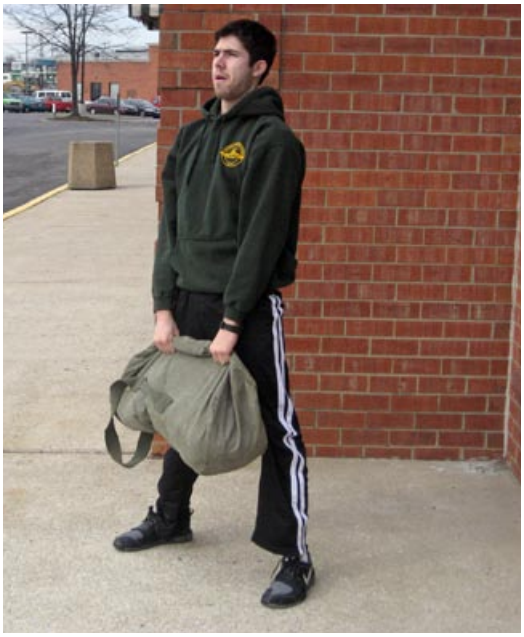
...continued

Foundational lifts

From the floor

When lifting the sandbag from the floor, be sure to emphasize proper lifting mechanics just as if it were a barbell. Unless you are performing a lift that requires otherwise, set up with the bag directly in front of you as for a clean or deadlift. Grip it using the materials rather than the handles, squat down, arch your back, and bring your head up. Dig in with your heels, keep your arms, straight, and lift the bag to mid thigh.

Starting position for the basic lifts from the ground



Initial lockout position for the basic lifts from the ground

Shouldering and cleaning

To shoulder the bag, continue your lift from the floor with a second pull (jump and shrug), just as in the barbell clean, and pop the bag up onto one shoulder. If you want to clean the bag to the chest, everything stays the same except the catch position. "Rack" the clean by shooting your elbows under as if it were a bar, or release the bag completely and catch it in the crooks of your elbows, in a Zercher squat position.

Shouldering

Sandbag Training

...continued

Shouldering and cleaning (continued...)

Getting a heavier bag up, or continuing to work under fatigue, will sometimes necessitate a change of technique. Before the rules of weightlifting were set, strongmen often used a form of the clean called the continental clean. This version allowed the lifter to pause halfway by bracing the weight on his thighs (in the way Atlas stones are lifted in strongman competitions today). Since there are no competition rules for sandbag lifting, it can be useful to utilize this technique. Once you get the bag to thigh level, remain in a partial squat to create a "shelf' with your lap for it to rest on. Clamp the bag tightly against your legs and use this time to take a quick breath or readjust your grip.

The knee bump is another useful variation. As the bag passes thigh level bring up one knee so that you can help throw it up using your leg. The power of your leg combined with your arms propels the bag upward so that you can complete the lift. Make an attempt to work with both legs equally when training this method.

The shifting weight forces your core and stabilizers to work overtime in an attempt to get the weight back under control. You will be forced to work considerably harder to control a given load.

The second pull and rack position in the clean

The pause position for the continental-style clean or for shouldering

The knee assist for getting the bag to the shoulder

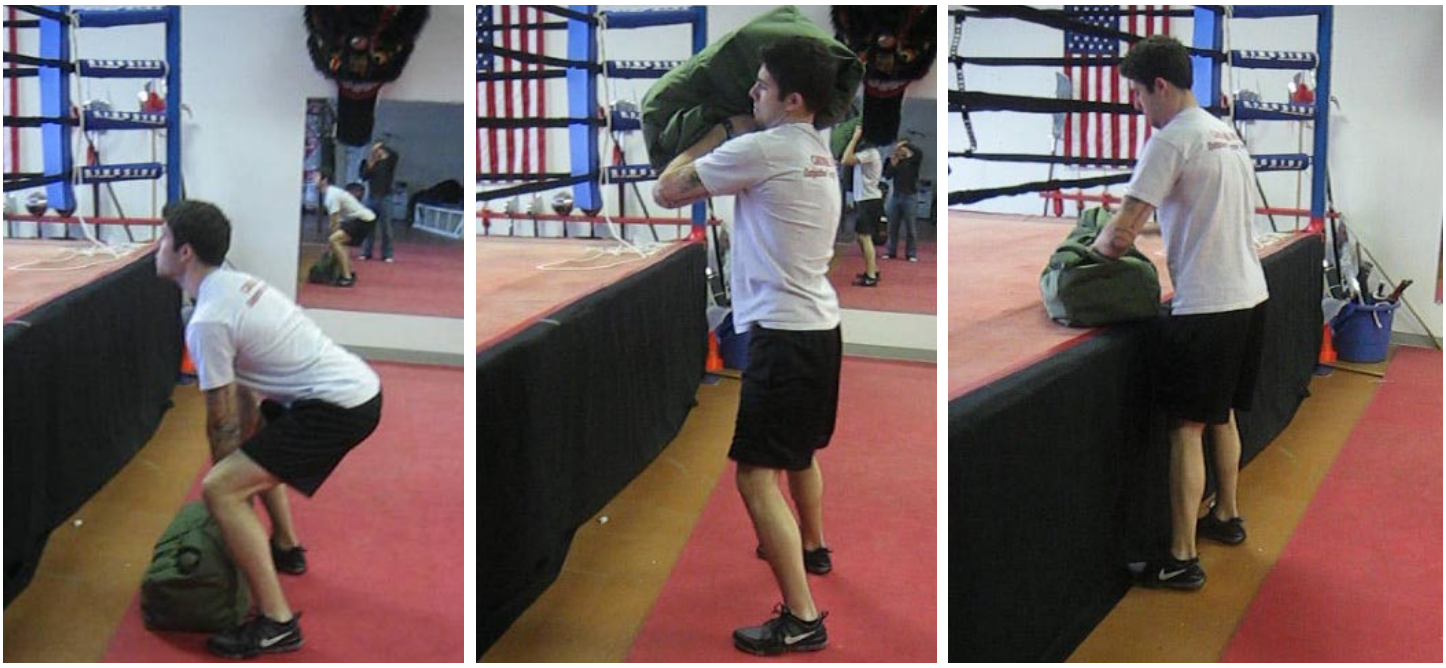
Sandbag Training

...continued

Holding, carrying, or loading

Once the bag is resting on your shoulder (or held in a rack, Zercher, or bear-hug position) there are a few different training options. First, if the bag is heavy enough, simply holding it in position for a given time is an extremely demanding isometric and core exercise. For a more dynamic lower-body workout, take the bag for a walk around the room or down the block. Vary the intensity by changing the load, duration, speed, and incline. Always use caution when decelerating under a heavy load because there is an increased risk of knee hyperextension. It is often better to dump the load at the end of a weighted run than chance injuring yourself.

Finally, you can load the bag onto a higher surface such as a box, truck bed, or, as shown, a boxing ring. Once you have put the bag down, slide it back onto the floor and repeat. A loading simulation can be done without the raised surface if you have a training partner. Shoulder the bag and hand it off. Your partner takes it, drops it back down, and then picks it up and hands it back to you.



The loading exercise done on a boxing ring

Squatting

The three main grips used for sandbag squatting are the one-shoulder grip, the Zercher grip, and the bear-hug grip. Get the bag into position properly, and then execute a standard squat. As with the barbell version, your heels must be firmly planted, back arched, head up, and butt back. Break parallel with your upper thighs on each rep. One-shoulder squats place an added emphasis on core stabilization since you must maintain a strict upright body position against an unevenly loaded object. Do not let

Shoulder squat

Bear-hug squat

Sandbag Training

...continued

the weight force the loaded shoulder down or change the squatting motion of the loaded leg. The Zercher and bear-hug versions force you to work hard to maintain your upright back position. Do not let the load pull your chest forward or your shoulders down or to rock you onto your toes.

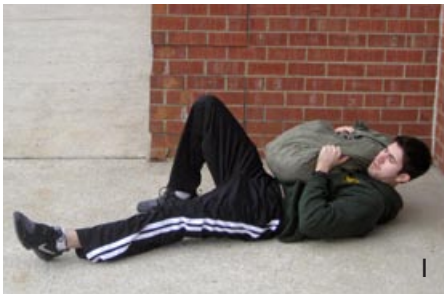
Turkish get-up

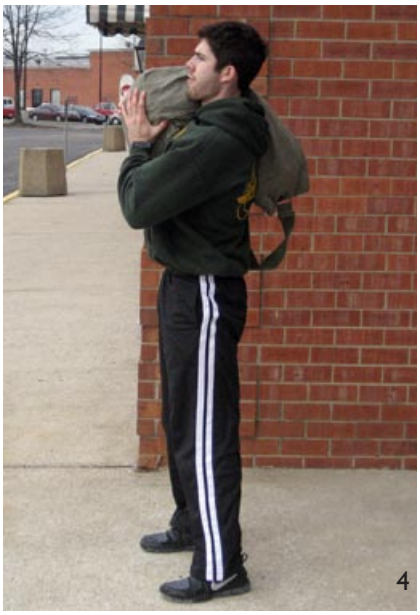
The sandbag Turkish get-up is similar to the dumbbell or barbell versions but can be a bit trickier because of the shifting weight. To complete this lift, shoulder the bag, and then lower yourself, under control, to the opposite knee. Place your hand down to brace yourself and sit down. Finally, hold the bag firmly and lie back. For this last part it helps to have a sandbag that will drape over your shoulder to some degree. If yours is more rigid you can simply do the lift without lying down but you will be missing out on some great core work.

Reverse the motion and return to the standing while keeping the bag firmly in place. Typically the beginning is the most difficult part of the lift and you may want to use a rocking motion to get started. Rock yourself forward and post on your arm to brace, and then stand up.

Bear-hug hold

The Zercher hold/catch position





Sandbag Turkish get-up

Online Video — Bearhug Squat
http://media.crossfit.com/cf-video/CrossFitJournal_JonesSandbagBearhugSquat.wmv
http://media.crossfit.com/cf-video/CrossFitJournal_JonesSandbagBearhugSquat.mov

Online Video — Continental
http://media.crossfit.com/cf-video/CrossFitJournal_JonesSandbagContinental.wmv
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Online Video — Shoulder
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Online Video — Dead
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Online Video — Loading
http://media.crossfit.com/cf-video/CrossFitJournal_JonesSandbagLoading.wmv
http://media.crossfit.com/cf-video/CrossFitJournal_JonesSandbagLoading.mov

Brian Jones holds a Masters degree and is a doctoral candidate in exercise physiology. He is a level-1 CrossFit trainer, a strength coach, and judo and Brazilian jiu-jitsu instructor. He is a regular contributor to *MILO* and is the author of the classic *The Complete Sandbag Training Course* and *The Conditioning Handbook*, available from Ironmind.

Endurance Training

Decreased Training Time & Increased Work Capacity

Brian MacKenzie

In reflecting on the CrossFit Certification seminar I recently attended at North Santa Cruz, these words still ring in my ears like Christmas bells: "Increased work capacity across broad time and modal domains, increased work capacity across broad time and modal domains, increased work capacity across broad time and modal domains."

The same weekend as the cert, three of the athletes I train were running the New York Marathon. They all finished and felt as though they had not really done a marathon, unlike many marathoners who train only long distances for long hours. At my training business, we start with technique with everyone we train. We teach each of them to squat, deadlift, snatch, and jump. It does not stop there. We look at their ability to keep a foot underneath themselves when running and how quickly they can "pull" it up off the ground as they move forward. This is the most effective approach to improving running that I have found, and as their speeds and paces get more impressive, the better the athletes get at correcting their technique in all sports as they begin to adjust to the neurological patterns associated with proper form.

Once we are comfortable with the technique we Increase the work capacity. It's about power! Time to get serious. Typically, soreness follows, which is to be expected but often comes as a surprise to the non-weightlifting individual. I always laugh at this, because most endurance athletes don't connect that soreness with their other experiences. For example, when their legs are shot at the end of a marathon, they tend to think it is somehow "aerobically" related. So, even though they could not be more wrong, they typically respond by increasing training miles to try to get muscle and tissue breakdown to stop. However, we go in the opposite direction: we CrossFit them! Then, once we've increased work capacity, we can focus on results, because if we are going to train someone for something that is ultimately what we are looking for, right?

Sample endurance training program

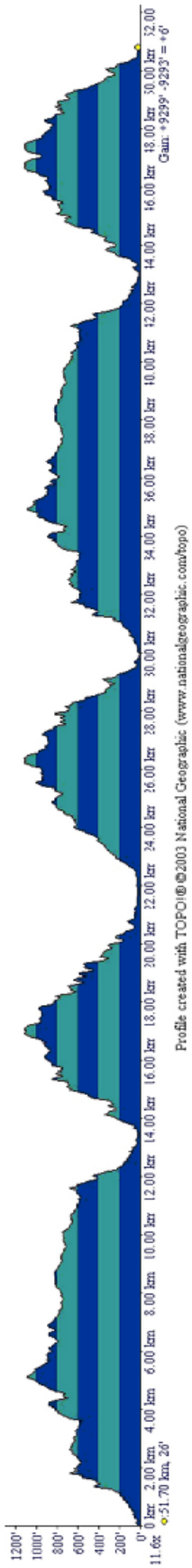
Since my first article on endurance training in the November 2007 issue of the *CrossFit Journal,* I've received numerous questions and inquiries from people who'd like more information on the what and how of our philosophies and using CrossFit in training for longer-distance events. I wish I could have some program that would look at each individual and spit out a tailor-made program. Unfortunately I don't have that and I can't just put out a month-long program based on your needs and your energy and what you can and can't handle without looking at what happens to you in training.

What I can do here, though, is to break down the last five weeks of training we used for an athlete preparing to run a hilly 50k (that's 31.2 miles, with 5,490 feet of climbing) as his first long-distance race. This particular guy—we'll call him "Rookie"—was a newcomer to these kinds of distances. The longest run he had ever done was 15 miles, and before beginning this program, he was not even actively a runner. We implemented the plan below for the last five weeks of training before race day, and, on November 18, he completed his 50k with no problems.

Please keep in mind that this program is not developed specifically for you: it is developed for this particular person. You will need to look at what you can handle. This means several things. Can you make your intervals (speed and recovery); are you losing strength, power, speed, flexibility; are you sleeping, eating, and feeling good? (Negative replies in these areas are all indicators of overtraining.) If these are not, you have to change something! Please beware and understand that this program is for someone who has been conditioned to handle CrossFit and a running program.

We started Rookie off by figuring out how much running he could handle in terms of speed, pace, and hill work. The Tabata run substituted for hill training in the end, but we started out using 100-meter hills that were run fast, with a very high cadence. Then we started having him do 1.2-mile hill climbs at about a 6 percent grade. The speed work is based off of time trials he did in the beginning and throughout the training. Each time his PR went up in a specific run, or when he could recover in less than 1:15 from intervals and hill repeats, we increased the intensity/paces.

If you do Tabata runs, leave your ego out of it. Start slow and scale up. I've had people fly off the backs of treadmills trying to prove something and failing miserably. Running at a 12 percent grade on a treadmill at 10 miles per hour will crush anyone if they are not ready for it and their form is off. The key to the Tabata run is to keep your cadence incredibly high (110+ foot strikes per foot per minute). To



The course profile of the 50k that Rookie ran. (It isn't flat) This is what most ultras look like.

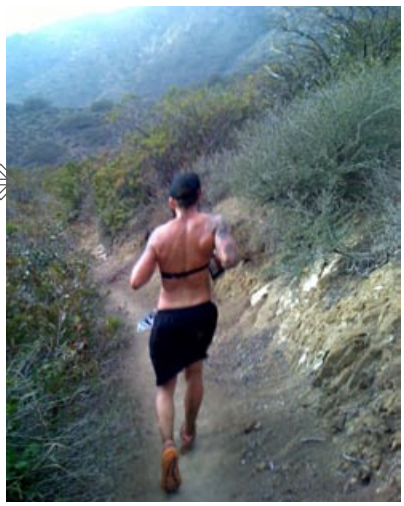
Endurance Training

...continued

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1	1. CrossFit: Heavy powerlifting/ Oly movements: squat, deadlift, clean, snatch, and bench, <10 reps x 3-5 sets 3 + hours later: 2. Run 4 x 1k at less than best 5k pace, recovering to 120 heart rate in less than 2 minutes	1. Tabata run in the a.m.: 20 sec work/10 sec rest x 8 sets, 12% grade, 9 mph 2. CrossFit: Metcon/ gymnastics mix	Run 5-10k at best half-marathon pace or faster	1. CrossFit: Bodyweight/ gymnastics ("Angie" is good) 3 hours later: 2. Tabata run (on treadmill): 20 sec work/10 sec rest x 8 sets, 12% grade, 6-10 mph (depending on ability)	CrossFit: Oly day: clean, snatch, jerk combos with box jumps, burpees, etc., medium weight	Run 15-mile trail run, heart rate below 160 (This is the longest run "Rookie" has ever done.)	1. Run 5 x 1k at 10 seconds below best 5k pace, recovering to 120 heart rate in less than 2 minutes 2. Strength recovery: Basic innervation exercises based around hips, 3 sets to burn so that we can go heavy or hard tomorrow
Week 2	1. CrossFit: Heavy powerlifting/ Oly movements: squat, deadlift, clean, snatch, and bench <10 reps x 3-5 sets 3 + hours later: 2. Run 4 x 1k at less than best 5k pace, recovering to 120 heart rate in less than 2 minutes	1. Tabata run in the a.m.: 20 sec work/10 sec rest x 8 sets, 12% grade, 9 mph 2. CrossFit: Metcon/ gymnastics mix	1. Run 5-10k at best half-marathon pace or faster 3 + hours later: 2. CrossFit	1. Tabata run (on treadmill): 20 sec work/10 sec rest x 8 sets, 12% grade, 6-10 mph (depending on ability) 3 hours later: 2. Long hill repeats x 2: Hills 1.2-miles long and at 6% grade, recovering to 120 heart rate in less than 2 minutes before repeating	CrossFit: Oly day: clean, snatch, jerk combos with box jumps, burpees, etc., medium weight	13.1-mile trail run, heart rate below 165	1. Run 4 x 1k at@ 10 seconds below best 5k pace, recovering to 120 heart rate in less than 2 minutes 2. Strength recovery: Basic innervation exercises based around hips, 3 sets to burn so that we can go heavy or hard tomorrow
Week 3 Same format but mix it up a bit for CrossFit this week	1. CrossFit 3 + hours later: 2. Run 5 x 400 meters at below best mile pace, recovering to 120 heart rate in less than 2 minutes	1. Tabata run in the a.m.: 20 sec work/10 sec rest x 8 sets, 12% grade, 9 mph 2. CrossFit	1. Run 5km easy 3 + hours later: 2. CrossFit: "Fran" at 80% effort	1. Tabata run (on treadmill): 20 sec work/10 sec rest x 8 sets, 12% grade, 6-10 mph (depending on ability) 3 + hours later: 2. Long hill repeats: Hills 1.2 miles long and at 6% grade, recovering to 120 heart rate in less than 2 minutes before repeating	CrossFit	Run 13.1-mile trail run, heart rate below 165	1. Run 4 x 1km at 10 seconds below best 5k pace, recovering to 120 heart rate in less than 2 minutes 2. Strength recovery: Basic innervation exercises based around hips, 3 sets to burn so that we can go heavy or hard tomorrow
Week 4	1. CrossFit 3 + hours later: 2. Run 4 x 1k at below best 5k pace, recovering to 120 heart rate in less than 2 minutes	1. Tabata run in the a.m.: 20 sec work/10 sec rest x 8 sets, 12% grade, 9 mph 2. CrossFit	Run 10 miles at a pace that is 4-7 minutes above your fastest 10-mile time (e.g., 1:07-1:10 if your best 10-mile time is 1:03)	Tabata run (on treadmill): 20 sec work/10 sec rest x 8 sets, 12% grade, 6-10 mph (depending on ability)	1. Tabata run in the a.m.: 20 sec work/10 sec rest x 8 sets, 12% grade, 9 mph. 2. CrossFit	One-hour jog	1. Run 8 x 200m at best mile pace, recovering to 120 heart rate in less than 2 minutes 2. Strength recovery: Basic innervation exercises based around hips, 3 sets to burn so that we can go heavy or hard tomorrow
Week 5	1. CrossFit 3 + hours later: 2. Run 8 x 200 meters at best mile pace, recovering to 120 heart rate in less than 2 minutes	Day off	CrossFit: Power: --Hang snatch 3 x 10-20 reps at 25% of max squat --Kettlebell swings 3 x 10 at same weight as snatch --Push jerk 3 x 10 reps at 25% of max squat --Box jumps 3 x 10-20 reps	Jog 30 minutes easy	Day off	Drills and warm-up	50k race

Endurance Training

...continued



calculate this, you just multiply by 6 the number of times either your left or right foot strikes in 10 seconds. (Or buy a tempo trainer and try to hold your cadence with the beat.)

The CrossFit workouts in the program above can follow the WOD posted on the CrossFit website, or you can tailor it to your needs to try to get the response you need. This is about progression and increasing work capacity for this sport. If you are not making gains, adjust it. Don't do more, though, under the assumption that you need additional aerobic training. Aerobic levels increase when work capacity increases. Fact! The beginning of your training cycle should be where you develop your basic aerobic capacity, and it shouldn't take three months. It should take no more than a month to get you up to handling a couple hours of aerobic activity.

Unfortunately, our approach has not been well received in the endurance world yet. However, we are making strides, and those who are familiar with CrossFit have given us the warmest welcome we could have ever gotten. The endurance community seems to be a little upset that someone has the audacity to say that what the masses are doing—and the popular magazines recommending—isn't the only way to train for going long. I am still baffled at the lack of questioning and the sheer blind determination of those who believe they need to train all day to achieve their goals.

As I sift through articles and books I come across something that makes what I am doing seem to make more and more sense. Dr. Mel Siff, a highly regarded sports scientist and author of the book *Facts and Fallacies of Fitness,* points out that "twentieth-century scientists have raised the heart onto a pedestal, where it remains relatively unchallenged by any other bodily system.… Fascination with the heart has also spawned an industry which has captured the attention of health entrepreneurs and the public—long, slow distance (LSD) athleticism. Cardiac health and prolonged longevity came to be regarded as the consequence of 'aerobic' exercise." Sound familiar? Moreover, he points out, all non-aerobic exercise has been deemed of little consequence in promoting cardiac health. Siff responds to that contention by citing study after study of anaerobic training and its effects on the heart (see, for example, Ralph Paffenbarger's studies of longshoremen and stair climbers). Astonishingly enough, hardly any studies have been conducted to show that "aerobic" (LSD) exercise is superior to any other form of exercise for preventing heart disease. So could the LSD/endurance community have it wrong? Well, let's just say there's more than one way to skin a cat!

	Benefits	Drawbacks
Aerobic training	• Increased cardiovascular function (as measured by VO_2 max) • Decreased body fat until plateau	• Decreased muscle mass • Decreased strength • Decreased power • Decreased speed • Decreased anaerobic capacity
Anaerobic training	• Increased cardiovascular function • Decreased body fat • Increased muscle mass • Increased strength • Increased power • Increased speed • Increased aerobic capacity	• Might require an aerobic foundation depending on sport

Table 1. Benefits and drawbacks of aerobic vs. anaerobic training

I realize that the vast majority of you probably already know this stuff. My point is that even in the above training plan for endurance running, there is very little aerobic training because I am not willing to have athletes do a ton of aerobic training when it means a loss in everything else. Also, it has been my experience that when they train stamina, strength, flexibility, power, coordination, agility, balance, and accuracy in addition to cardiovascular endurance and speed, my athletes make much larger gains.

More often than not, I question everyone and everything, and for this I make some enemies, but I also make some serious new friends. I have found a family in CrossFit, largely because we are pursuing the same thing. Although my background is in endurance and CrossFit is about overall fitness, there is just too much common ground in our philosophies not to work together to "increase work capacity (power) across broad time (short duration to long duration) and modal domains."

Brian MacKenzie *is a strength and conditioning coach for endurance athletes and a trainer for Multisports Orange County. He owns CrossFit Newport Beach and operates an internship for professional trainers. Brian is an accomplished ultra distance runner, finishing both the Western States 100 and the Angeles Crest 100 races with only minimal hours of training.*

Coach Burgener Teaches the Snatch

Part 1 (Video Article)

Mike Burgener

Online Video — Video Article (11:42)

http://media.crossfit.com/cf-video/CrossFitJournal_BurgPatSnatch1.wmv

http://media.crossfit.com/cf-video/CrossFitJournal_BurgPatSnatch1.mov

We pulled Olympic lifting coach Mike Burgener aside during the lunch break at a recent CrossFit certification seminar to teach Pat, of CrossFit Virginia Beach, to snatch. Pat's a very good athlete but has limited exposure to heavy Olympic lifting, especially snatching. Burg started him with PVC, expecting to breeze right through, but Pat made several little errors that needed fixing off the bat and was inconsistent in his movement. Burg rode him hard about them, making several essential coaching points along the way, including that athletes need to be ridden hard to nail technique from the beginning.

He gets Pat through some basics on footwork and positioning, plus the Burgener warm-up in this month's video. Next month, Part 2 in the series will continue the lesson.

Mike Burgener, a.k.a. "Coach B" or simply "Burg," is the owner of Mike's Gym (a CrossFit affiliate and USAW Regional Training Center), a USAW Senior International Coach, former junior World team (1996-2004) and senior World team (2005) coach, and the strength and conditioning coach at Rancho Buena Vista High School in Vista, Calif.

Tribute to a Coach

Andrew J. Thompson

"Make pain your ally. The more familiar it becomes, the easier it is to manage."

--Phil Emery

Many years ago, I experienced leadership and coaching in its purest form. From 1991 to 1996 my life was forever changed by a coach named Phil Emery. Coach Emery was the innovative strength and conditioning coordinator for the United States Naval Academy (USNA) football program. His background as a collegiate football player and coach enabled him to foresee the needs of each trainee. While keeping the needs of the team as a whole in mind, his leadership inspired individual and collective growth.

That growth was fueled by Coach Emery's high expectations and by competitive public benchmarks of performance and progress. The weight room had a "leader board" (much like the whiteboards at CrossFit Santa Cruz), where the top sprint times and bench press, squat, and vertical jump test scores were publicly displayed. A 350-pound bench press or 500-pound squat also earned photo recognition on the weight room wall. A photo on the wall represented more than a number. It indicated commitment and sacrifice.

Over the years, Coach Emery's training methods evolved. His mantra of "always gain, never maintain" crushed the status quo. Complacency was unacceptable. Coach Emery's approach to strength and conditioning was an extension of the Naval Academy's mission. He prepared players mentally and physically for the rigors of collegiate competition. He complemented the weight facility's normal equipment with gear of his own devising. Steel pipes, buckets of gravel, sledgehammers, 4×4 wood beams, and inner tubes filled with gravel were used regularly to develop functional strength and conditioning. The players gave nicknames to Coach Emery's devices—the "Torture Table" and the "Electric Chair" were particular favorites. Slow lifts (bench press and back squat), Olympic lifts (clean and snatch), weighted pull-ups and hill sprints generated explosive power and speed on the field. Cardiovascular training developed stamina, and position-specific drills enhanced agility. His unconventional training methods increased the team's physical readiness, and players' improved physical performance in turn inspired confidence in their abilities to conquer the demands of college football.

At the time, the Navy's strength and conditioning facility was small and equipment was limited. The facility was limited to six power racks, a 10-foot by 40-foot multi-purpose platform, a small dumbbell storage area, and no free floor space. Coach Emery devised a detailed schedule that maximized space and time, minimized waste, and sustained a steady flow of trainees. Trainees were grouped by position to match relative sizes and strength capabilities. Coach Emery also understood the needs of each athlete and designed workouts accordingly. On top of military duties, tutoring and study time were daily priorities for all the trainees. Coach Emery understood this and allowed players who were "athletically inclined, yet academically challenged" to study first and finish weight workouts at the end of the day's rotation schedule. His organizational acumen and the way he "walked the talk" on his values fostered both academic and athletic improvement.

In addition to innovation, the supporting framework behind Coach Emery's effective and innovative training methods was the way he held his athletes (and himself) accountable for their actions and performance. His expectations included, but were not limited to, adherence to his training standards, open two-way communication, and punctuality. Coach Emery was relentless when it came to enforcing these standards. Players who were not able to meet his expectations moved on to other pursuits.

Coach Emery knew that the demands he placed on the team would be effective only if they were reinforced by his example, his own accountability, and his genuine investment in the team's pursuits.

Coach Emery's insistence on details ensured quality athletic performance. As demanding as he was, Coach Emery was also the first person most players would contact regarding personal matters. He handled academic, personal behavior, and disciplinary issues discreetly and with a view toward long-term resolution and learning opportunities. Most importantly, any corrective actions he had to take were done with the players' best interests in mind, and administered without either public or private retribution.

Coach Emery's influence at the Naval Academy remains legendary, almost mythical to some. He was even mentioned in John Feinstein's bestselling 1996 book *A Civil War: Army vs. Navy, A Year Inside College Football's Purest Rivalry*:

Tribute to a Coach

...continued

> "Satan" was their nickname for Phil Emery. During his years at Navy, he had become the most stable force in the lives of the football players. He was a master at torturing the players during their off-season conditioning drills, driving them to their absolute limits and beyond. One winter morning, an ice storm had completely shut down the eastern seaboard. Since Emery lived outside of Annapolis, the players arrived for their 5:30 AM running and conditioning session fully convinced they would end up with a morning off. But as they walked through the darkness to Ricketts Hall, they saw a lone car sitting in the parking lot waiting for them—Emery's. Only the devil himself could have made it there before dawn—and taken such pleasure in being there on a totally miserable morning.

Coach Emery knew that the demands he placed on the team would be effective only if they were reinforced by his example, his own accountability, and his genuine investment in the team's pursuits. That cold winter morning exemplified Coach Emery's unwavering commitment.

In retrospect, it's not hard to see why Coach Emery was such an inspiring, influential, and effective coach. If I could boil it down to a few key points, they would be these:

- His innovative training techniques, time management skills, and unconventional methods of training led to highly-skilled, competitive collegiate athletes.

- His demand for quality work and thorough preparation was cemented by his ability to hold others accountable. Coach Emery's administration of corrective disciplinary action was fair, firm, and without resentment.

- Coach Emery had high personal expectations and led by example. Therefore, it was a natural exchange to ask for so much from so many. His personal level of commitment permeated the entire football program, lending it credibility, effectiveness, and respect. He did anything and everything he asked of his players.

- Each conditioning session was personally designed and created and by Coach Emery. Pre-dawn runs, brutal weight-room sessions, injury rehabilitation, and football conditioning all were intended to foster individual and team strength and collective struggle. Collective struggle strengthened team cohesion.

Coach Emery guided the Navy football team through some difficult times (consecutive disappointing seasons, a player's suicide, a head coach's firing). He mitigated unfortunate circumstances and his influence transcended strength and conditioning. He took time to guide, teach, and mentor, and fostered many lifelong relationships with his players. Dozens of his athletes enjoyed successful football careers. And newly commissioned officers were well prepared for their respective military journeys after years of his teaching.

Coach Emery's former players include Navy Sea Air and Land (SEAL) commandos, jet fighter pilots, Marines, and well-rounded citizens. He equipped people with the skills to live physically fit, mentally acute, and productive lives. Coach Emery prepared me personally for a lifetime of challenge. It's been said that leaders take people where they've never been, to places they're afraid to go. My teammates and I never doubted Phil's love for us on our journey down that difficult road. We know he knows the feelings are mutual.

Andrew Thompson is a Major in the U.S. Marine Corps and a level-3 CrossFit certified trainer. Phil Emery is now the Director of College Scouting for the Atlanta Falcons.

Double-Kettlebell Push Press and Jerk

Jeff Martone

The push press and jerk are essential functional exercises in the CrossFit toolbox. These movements can easily be adapted from traditional barbells to dumbbells, kettlebells, sandbags, etc. In this article, you will learn how to perform the double-kettlebell push press and jerk. To get there, we must first cover the proper method of cleaning two kettlebells and establishing a comfortable rack position.


Photo 1

Double-kettlebell clean

1. Set two kettlebells on the ground in front of you, handles on the diagonal (photo 1).
2. Take a slightly wider stance than you would to clean one kettlebell.
3. Set your grip in the corners of the handles (photo 2).
4. Keeping your head up and back straight, extend your legs and pull (i.e., hike) the kettlebells up in a backward arc between your legs (photo 3).
5. Once the kettlebells reach the back end of the arc, explosively extend your knees and hips to drive the kettlebells forward and up, cleaning them to the rack position (photos 4, 5, and 6).

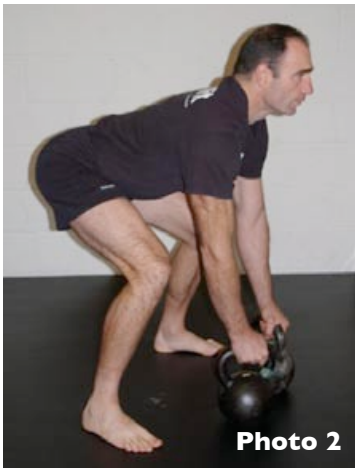


Photo 2

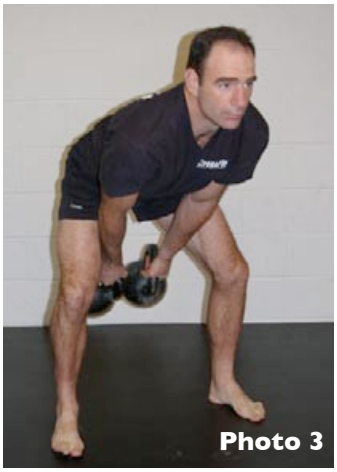


Photo 3

Caution: It is imperative that you unwrap and tuck your fingers as the kettlebells reach the rack position (photo 7). If you forget, it will be a "self-correcting," since tucking your fingers will keep them from accidentally getting crushed between the two handles. Trust me, it will only happen once!

The rack

Once the kettlebells are cleaned from the ground, a comfortable and solid rack position is essential for effectively performing a double overhead press, push press, or jerk. A good rack position has the following characteristics:

1. Knees are straight but not overextended.
2. Elbows are directly over the hips. It's best to actually rest your elbows right on the bony part of the hip (photo 8). This will allow you to "relax" between reps, letting much of the weight of the kettlebells be supported by your body rather than your arms. If your body type doesn't allow your elbows to rest on your hips, make sure the backs of your arms are glued to your torso.
3. The web of your hand should be deep into the corner of the kettlebell. The handle itself should be diagonally across your hand, resting on the base of your palm. Your wrist should be straight or just slightly flexed.
4. Open your grip and tuck all fingers except the forefinger. You don't need a tight grip on the handle when it's in the rack position. In fact, it's best to give your grip a rest by relaxing your hands.


Photo 4


Photo 5

Double-Kettlebell Push Press and Jerk

...continued

A solid and comfortable rack position is key to creating a positive transfer of force from the ground through your legs, hips, and trunk to your arms with no power leakage. If you allow space between your arms and torso, your efficiency, stamina, and power will decrease. There's a saying in BJJ that "contact equals control and space equals escape" and in weightlifting that "when the arms bend, the power ends." The same principle holds true here—for effective transmission of force, there should be no gaps between the links in the system.


Photo 6

Push press

The learning sequence for overhead lifts moves from least to most dynamic and powerful: press, then push press, then jerk. The push press builds on the strict press (see CFJ issue 62) by tapping into the power of the hips and legs to help propel the weight overhead.

1. Start by cleaning two kettlebells to the rack position (photo 9).
2. Unlock your knees and hips to dip slightly, keeping your torso upright and the kettlebells firmly racked. Your knees will move slightly forward but not past the toes (photo 10).
3. Powerfully push the floor away, extending your legs and hips, and open your chest. It is this explosive movement that will propel the kettlebells overhead. Note that the legs will then straighten powerfully, but there is no rebend, or "double dip," in the push press when you drive the kettlebells overhead (photo 11).
4. The arms move straight up from the rack. There is no need to rotate your palms forward as your arms extend. As the kettlebell passes eye level push your chest slightly forward. As your chest moves forward, keep your knees locked and do not bend them until it's time to lower the kettlebell. Be sure your knees and elbows are straight at the termination of the lift.
5. Lower the kettlebell back to the rack position. This should take a minimal amount of muscle or energy. Think of it as more of a controlled fall and catch. Unlock your elbows and slightly lean your upper body rearward. Tighten your abs just before your triceps touch your ribcage. As contact is made, absorb the impact by bending your knees and exhaling a little bit of air (photo 12). This helps facilitate a much softer landing, and it gets you into the right position to immediately perform another rep.


Photo 7


Photo 8


Photo 9

A great way to practice the push press is to perform as many strict overhead presses as possible. When you come to the point just before failure to complete the lift, switch to the push press and crank out as many reps as possible. This forces you to use the power from your legs. If you don't, the weight will never make it overhead to lock out.

Double-Kettlebell Push Press and Jerk

...continued

Practice for reps or for time. A fun and challenging drill is to perform as many push presses as you can in one minute. Another way to change it up is to push press one kettlebell for one minute, then switch hands and perform as many reps as possible for one minute; repeat. A third way is to turn the push press into a thruster by adding a front squat before it. For an interesting change-up the next time you do "Fran," try the thrusters with two kettlebells instead of a barbell.

Jerk

The jerk is a very efficient way to get a heavy object overhead—especially when the weight is too heavy or your muscles are too fatigued to press or push press it.

The first three steps of the jerk are exactly the same as in the push press. The difference is that, in the jerk, you drop under the weight as you drive it overhead, so that you land with flexed hips and knees in a high partial squat position before extending them to stand fully extended.

1. Start by cleaning two kettlebells to the rack position (photo 9).
2. Unlock your knees and hips to dip slightly, keeping your torso upright and the kettlebells firmly racked. Your knees will move slightly forward but not past the toes (photo 10).
3. Powerfully push the floor away, extending your legs and hips, and open your chest. It is this explosive movement that will propel the kettlebells overhead (photo 11).
4. "Drop and lock" by quickly sitting back (actively pulling your hips back and down and bending your knees) at the same time that you extend your arms overhead (i.e., lock your elbows straight) as you lean your upper body forward slightly (photo 13).
5. Extend your knees and pause at the top position, with elbows and knees straight and torso tight (photo 11).
6. Lower the kettlebells safely to the rack position (as in step 5 for the push press, above).

Practice jerks when your legs are fresh but your arms are tired from a high volume of presses. Make sure to extend the hips completely before making the second dip into the catch position. The hip drive is the power behind the movement; don't cut it short. As with the push press, you can combine the jerk with a front squat make a demanding full-body strength and coordination challenge, especially when done for reps.

One of the biggest benefits of learning the movements of the push press and jerk with kettlebells is the ability to train around injuries. Many folks have chronic wrist or elbow injuries that can be aggravated by cleans and dynamic presses with a barbell. Remember, as Coach Glassman says, "the magic is in the movement," not in the implement. The important thing is to keep training and keep safe. Whatever the implement, master the movements and don't get hung up on the tools.


Photo 10


Photo 11


Photo 12


Photo 13

Jeff Martone, owner of Tactical Athlete Training Systems, was one of the first certified senior kettlebell instructors in the United States. He is the creator of "hand-2-hand" kettlebell juggling, SHOT training, and the T.A.P.S. pull-up system and is the author of six training DVDs. He has over 15 years of experience as a full-time defensive tactics, firearms, and special-response-team instructor. He is currently the instructor for CrossFit's kettlebell certification seminar.

Productive Application of Force

(Video Article)

Greg Glassman

Online Video — Video Article (11:31)

http://media.crossfit.com/cf-video/CrossFitJournal_CoachProductiveAppForce.wmv

http://media.crossfit.com/cf-video/CrossFitJournal_CoachProductiveAppForce.mov

Strength, as an isolated quality, can be defined and measured as the biological contractile potential of muscle—as how hard your muscles can contract to apply force. But from our perspective, Coach Glassman explains in this lecture excerpt, that is an incomplete definition and an isolated measure that doesn't really reveal much about its application to real-world functionality (just as VO2 max measurements alone tell us little about a person's capacity and athleticism). True, useful strength is not merely the muscles' ability to generate force but *a body's ability to productively apply that force*.

The missing link in so much mainstream fitness programming, from bodybuilding to monostructural endeavors, is the neuromuscular piece—in particular, the development of coordination, accuracy, agility, and balance. We can sum these elements up as "technique." Omitting them from one's training necessarily results in only partial fitness, partial expression of one's genetic potential, and a decreased threshold of maximal capacity.

To increase work capacity across broad time and modal domains (the goal of CrossFit), technique is the crucial connection—whether your goal is to win the game, protect your life, complete the mission, or just be fit for the demands of everyday life at any age.

Greg Glassman is the CEO and founder, with Lauren Glassman, of CrossFit, Inc., and the publisher of the *CrossFit Journal*.

Pre-SOF Training

Part 2 - "Indoc"

Robert Ord

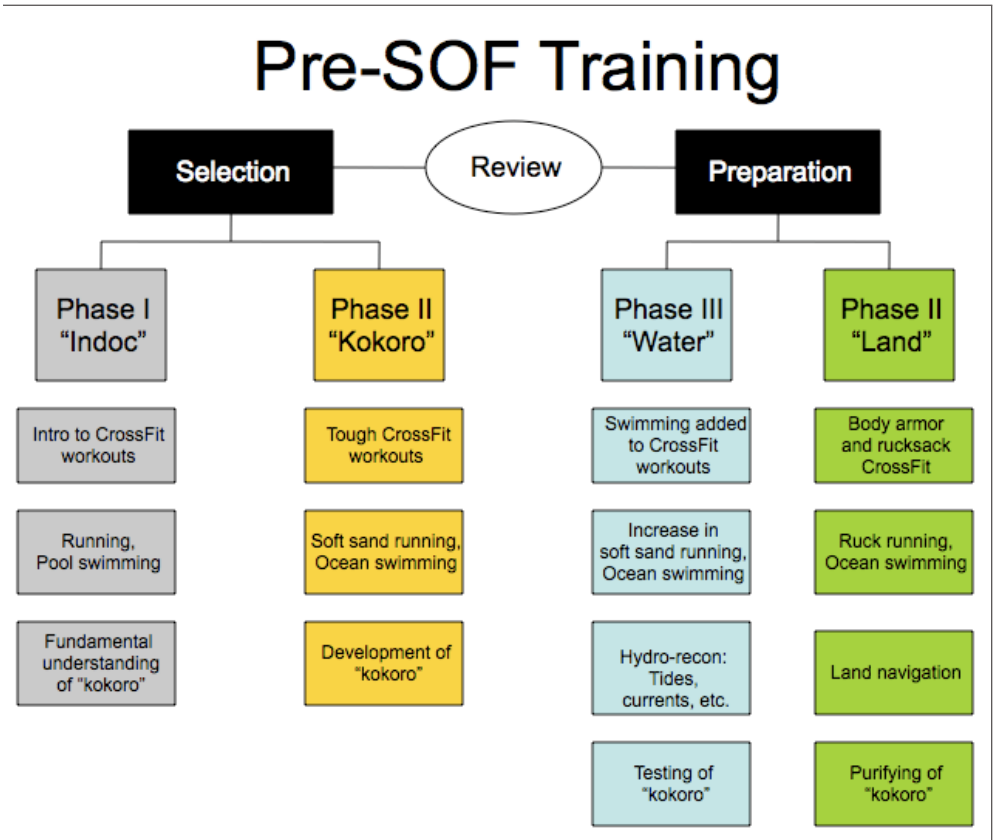
The primary objective of this *CrossFit Journal* series of articles on pre-SOF (Special Operations Forces) training is to provide every CrossFit affiliate a model for running high-quality, well-rounded training for individuals committed to SOF-level fitness, not only in the U.S. and Canada but around the globe. Last month's article introduced U.S. Tactical's program for developing pipeline-ready candidates for USSOCOM (United States Special Operations Command) by fusing CrossFit principles with specific SOF-related mental and physical training elements. U.S. Tactical's training program is divided into two main blocks, "Selection" and "Preparation." In this issue, we'll take an in-depth look at the first phase of Selection, known as "Indoctrination."

Selection: Laying the foundation

After experimenting with a number of different models, we found that the best overall scenario for providing specialized pre-SOF training while also running a busy CrossFit program was to schedule the training for a single two-hour block, once a week. At U.S. Tactical CrossFit, we use Friday afternoons from 2:00 to 4:00 pm to allow high school and college students with regular schedules to participate.

Additional training outside of the single pre-SOF session each week is a requirement; therefore each candidate is asked to keep a personal training log. We recommend that at least two of the entries each week, other than the Pre-SOF training itself, be WODs (workouts of the day) from NavySEALs.com. As training progresses, we identify particular areas where special attention needs to be focused for each individual. For example, if one candidate is a cross-country runner but cannot deadlift his own bodyweight, workouts involving running will be curtailed to allow for development of more strength and power. On the other hand, if a person cannot finish a three-mile conditioning run with the rest of the group, additional workouts will focus on building an aerobic base via high intensity met-con workouts that often involve running. The bottom line on additional training is that it should represent the basic fundamentals of CrossFit—"constantly varied functional movement, performed at high intensity"—with a strategic training objective of targeting areas of weakness identified in our pre-SOF training sessions.

It is important to note that at the beginning of Selection, no assumptions are made about the physical state of a candidate. Some begin the training having already prepared their bodies for some time by running, swimming, doing calisthenics, and lifting weights, while others have rarely participated in any type of real physical training. Obviously, while it is in the best interest of an individual to have a base of fitness before beginning, the objective of the first phase of Selection is to provide mental and physical training to the level necessary to move on to the second, more demanding phase, Assessment.



Pre-SOF training is divided into two main components: Selection and Preparation. Each of these is further broken into two phases, each with very definite training objectives.

What *is* assumed, and expected, of each candidate is that they are there because they want to be, as evidenced by their attitude, motivation, and willingness to work as a team. Like the elite military special operations training pipelines, pre-SOF training is completely voluntary. As every CrossFit trainer knows, there are some individuals who say one thing about their commitment and openness to learning, while their overall demeanor shouts something else entirely. A common form of this is the "on my own program" trainee, who is already doing what he is certain is the "best" thing and is reluctant to listen and unwilling to change. As CrossFit trainers, we all have to deal with this at one point or another, but in pre-SOF

Pre-SOF Training

...continued

training, never. Simply stated, if you come here out of shape but willing to work hard, I can deal with that. If you come here as a "know it all" or with a crappy attitude, no matter how fit you are, you will leave before you get started.

Programming for the Indoc phase

The following schedule details the training sessions that make up the Indoctrination phase. Remember that Pre-SOF group training occurs once a week for two hours, and that additional CrossFit training is a requirement of the candidates. When planning a training session, we always include five essential components (not necessarily in this order):

1. Pre-training brief
2. Conditioning run or swim and stretch
3. CrossFit workout
4. Development of kokoro, or "the warrior within"
5. Post-training debrief and assignments

Session 1

	Agenda	Instructor Remarks	
Brief	Welcome / Health questionnaires and waiver	Must be filled out prior to training. Parent signature required for minors.	20 minutes
	Phase training schedule	The "Agenda" section only	
	What is expected: "The three A's"	Attitude, Aptitude, Adaptability	
Conditioning	Easy 1-mile run and stretch	Warm up	40 minutes
	3-mile group run at moderate pace	Stay together; led by Instructor.	
CrossFit	"Angie": 100 pull-ups 100 push-ups 100 sit-ups 100 squats	Demonstrate proper form and explain rules of the workout. Allow 30 minutes for completion.	40 minutes
Kokoro	Brass ring vision: "The goal"	Goal focus (see below)	15 minutes
Debrief	Running and "Angie" scores	Importance of proficiency in both	5 minutes
	Assignment: PT log	Log all training done outside	

The three A's

The three A's—attitude, aptitude, and adaptability—represent the personal characteristics of successful leaders and teams. Attitude is an open mindset, demonstrated by someone who is here to learn, and here to lead. Aptitude is ability, skill, or talent. Everyone brings something to the table; make sure it is your best. Adaptability is being able to perform and respond to a variety of demands, and it includes behaviors such as stepping up and volunteering to fill a gap or help a buddy. Doing what is required often goes beyond doing what is asked.

Brass ring vision: The goal

The first step to cultivating the deep, indomitable spirit required to overcome any obstacle is to actively develop a clear picture or scene in your mind that embodies your success. This not only helps motivate you to maintain the discipline to complete your training each day, but it also helps inspire you to push yourself all the way to your limits. Think of this as a "brass ring vision" that represents everything you are reaching for. It should be the first thing you think of when you wake up and the last thing you think of when you go to sleep. It might be "graduation day" vision or a montage of "operational scenes," or picturing yourself completing a challenging task or mission—whatever drives you viscerally.

Pre-SOF Training

...continued

Session 2

	Agenda	Instructor Remarks	
Brief	PT logs	Review PT logs	10 minutes
	Description and duties of Team Leader (TL)	Pick a TL	
	Recall information	All contact info goes to TL	
CrossFit	1-mile run led by TL	Warm-up run	allow 10 minutes
	"Cindy": Complete max rounds in 20 minutes: 5 pull-ups 10 push-ups 15 squats	Moderate to high intensity	30 minutes
Conditioning	Conditioning run	2-mile group run	60 minutes
	100 sit-ups 100 flutter kicks	Done in alternating sets of 25	
	Conditioning run	2-mile group run	
Kokoro	Brass ring vision: "The stabilizer"	(See below)	15 minutes
Debrief	Individual performance	Hold no punches	5 minutes
	Assignment: "Why are you here?"	Written assignment	

Brass ring vision: The stabilizer

Just as the "goal" of the brass ring vision serves to motivate and inspire, it is also a stabilizer when you're off balance. One of the primary objectives of SOF training is to mentally and physically stress individuals to the point of exhaustion, where weaknesses and insecurities are exposed. Mentally grabbing the brass ring at times like these helps trainees to regain balance by centering their resolve on what is important in the long run.

Session 3

	Agenda	Instructor Remarks	
Brief	PT logs	Review PT logs	20 minutes
	Turn in assignment "Why are you here?"	Collect	
	Medal of Honor citation to Lt. Michael Murphy	Read by TL. Discuss "Murph" mindset.	
CrossFit	"Murph": Run 1 mile 100 Pull ups 200 Push ups 300 squats Run 1 mile	Break down sets down as needed—e.g. 10 sets of 10 pull-ups, 20 push-ups, 30 squats.	45 minutes
Conditioning	25 knees to elbows 50 flutter kicks 75 sit-ups 100 leg levers	All to be done at least once through	30 minutes
Kokoro	Brass ring vision: "Building your vision"	(See below)	20 minutes
Debrief	Individual performance	Hold no punches	5 minutes
	Assignment: Memorize SEAL code	Provide handout	

Pre-SOF Training

...continued

Session 3 *(continued...)*

Brass ring vision: Building your vision

By this point there should be a number of "visions" that a candidate has developed. Building on them by consciously concentrating on every detail, starting with the five senses—sight, smell, hearing, touch, and taste—and then the emotional impact, brings the vision to life so that, in the mind, failure is not an option because success is already a reality.

Session 4

	Agenda	Instructor Remarks	
Brief	PT logs	Review PT logs	20 minutes
	Recite SEAL code	Each candidate recites from lean & rest (i.e., push-up) position	
CrossFit	"Fran": 21, 15, 9 reps of each: Thrusters Pull-ups	Scaling of weight is allowed if necessary but not recommended	20 minutes
Conditioning	6-mile conditioning run	Individual effort	60 minutes
Kokoro	Brass ring vision: Believing your vision	(See below)	10 minutes
Debrief	Individual performance	Hold no punches	10 minutes
	Expectations of next phase, "Assessment"	Provide agenda for Assessment phase	

Brass ring vision: Believing your vision

Believing in your vision and its achievement is equivalent to and leads to believing in yourself. If the steps from the preceding weeks were followed, candidates will have developed confidence in "the reality" that that they have created.

Conclusion

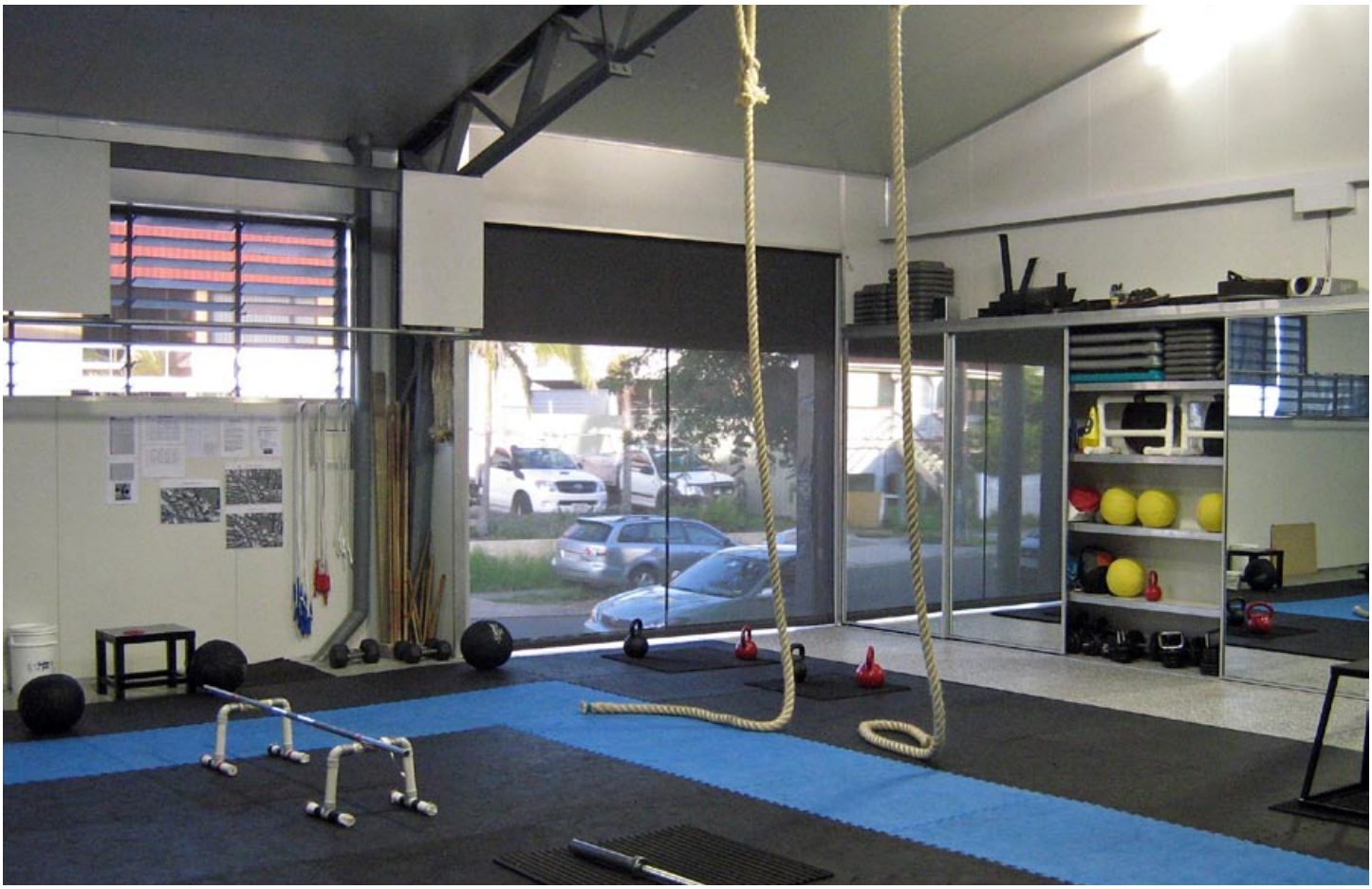
One of our primary objectives up to this point has been to gradually prepare candidates physically for the intensity to come, so that (among other things) there are no visits from Uncle Rhabdo. So far there have been no pass or fail scenarios, and the focus has been on teaching technique and answering questions. We have required candidates to push themselves hard enough to elicit a positive response, while ensuring that the stimulus for is metered and appropriate for the individuals. By the time candidates have reached the end of the fourth week, they have been doing some form of CrossFit at least three times a week, they have worked with other like-minded individuals with similar goals, and they have been taught the first steps of developing "kokoro" by understanding the principles of creating and controlling their "brass ring vision."

Thee next step in their pre-SOF training is the Assessment phase. This is where the rubber meets the road. Candidates will have some tough requirements to meet, or be sent back to the beginning.

Robert Ord is the Director of Training at the U.S. Tactical CrossFit Training Center in Encinitas, California, where he oversees all CrossFit training at the center as well as the online training and mentoring provided by NavySEALs.com. Initially trained by the Navy as a corpsman and deep sea diver, Rob chose the path of Special Operations by volunteering for duty with SEAL Delivery Vehicle Team One, where he worked as a diving medical technician in numerous platoons and other capacities. He worked as a consultant and contractor with the Navy in its efforts to find and effectively prepare future SEALs, Special Warfare combat crewmen, explosive ordnance disposal technicians, and Navy divers before devoting his full time to the U.S. Tactical CrossFit Training Center.

Partnering with a Martial Arts Dojo

Matt Swift



Spend time browsing the threads on the affiliate section of the CrossFit message board and you will quickly discover that many new affiliates sooner or later face the same dilemma: "Should I set up my own box or work out of an existing gym?" Neither option appears particularly attractive when starting out. Setting up your own box seems dauntingly expensive and sends waves of doubt through even the most hardened business mind. "What if no one turns up?" Likewise, working out of a gym is fraught with frustration when the realization sinks in that very few gyms will allow chalk, handstands on the wall, grunting, or dropping weights. So, although having your own box is the ultimate dream of most new affiliates, and renting space from a gym is an obvious stepping stone, in the beginning, neither option really appeals.

Well there is another option, and it's one that we at CrossFit Brisbane stumbled on by accident. It has proven to be the best of both worlds, providing the feel of our own box while minimizing our initial outlay. While we were in the midst of trying to resolve the "where should we set up shop" dilemma, one of our clients suggested that we talk to the local martial arts dojo, and from the moment we walked in, it was clear that we had found the ideal home for our start-up phase.

To a CrossFitter, there is something inherently attractive about martial arts dojos. We have come to realize that they may be the long lost siblings of CrossFit. They are noisy, confronting environments where sweating is encouraged and people love to bang things. Martial artists seek out performance and recognize that pain is an essential artifact of the process. Every day, people turn up for no other reason than to be better at what they do and improve their technique, and they are willing to suffer to do it. Sound familiar?

But not all dojos are the same. The martial arts industry has been infected by the same greed-based commercialism that led to the explosion of globo gyms. "McDojos" are everywhere. So, how do you partner with the right one—one that aligns with your approach and will foster your goals and methods? We were lucky enough to walk into what turned out to be a highly CrossFit-compatible environment, and with the benefit of hindsight, we can provide a simple shopping guide.

1. Pick a dojo that has a ring. Rings exist only in places where people fight and are symbolic of seriousness. You do not need a ring to spar, but you do if you are going to produce genuine fighters. Fight-based dojos are the real deal and are homes to people who like to train hard. The ring is to the martial

Partnering with a Martial Arts Dojo

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arts what the lifting platform is to CrossFit. Find a dojo with a ring and it improves the chance that it is CrossFit-compatible.

2. Carefully read the class schedules and pick a dojo that typically has class times that don't conflict with when you want to run CrossFit sessions. Don't compete for the same times; there is no future in a conflicting schedule. Most dojos run sessions in the evening, so there is a great opportunity to gain unencumbered access to the space in the morning and for much of the day.

3. Make sure the owner is passionate about his (her) art. Purists are less likely to sell out. They are also more likely to appreciate and support your passion for what you do.

4. Look for a facility with plenty of open space, and, ideally, a separate area you can use. We found a dojo with a gym attached that provided multiple work areas. Space is the most important commodity when client numbers start to ramp up. Remember that the dojo will grow, you will grow, and sooner or later you will start to compete for space.

5. It needs to be a full-time dojo where the owner holds the lease or title to the building.

6. Use your instincts: Does the place have the right vibe?

Sound simple? Well maybe not simple, but it *is* doable. Look around and you will likely find a compatible dojo in your local area, and I am willing to bet a dollar that they are under-utilizing their facility. However, finding the right dojo is the easy bit in comparison to the next steps. Nothing worth doing ever comes without hard work, and the real challenge lies first in convincing the owner that running CrossFit sessions out of his facility is a good thing to do, and, second, in integrating with the existing operation without driving the owner nuts.

Patience is a virtue, and successfully operating CrossFit classes out of a dojo can take plenty. Over the past twelve months, we have transformed our environment inch by inch. Understandably, the owner was initially indifferent to CrossFit ("You do what?") and had no interest in including it within his program ("I already run group fitness sessions"). The negotiations for us were complicated by the fact that the owner was also a personal trainer and has a gym area attached to the dojo. There were existing gym and personal training clients in addition to the martial arts clients, and to some extent there was a conflict of interest. However, although not particularly interested in CrossFit, he was interested in extra revenue, so we negotiated use of the gym for two sessions a week at times when martial arts classes were not being run. It was better than nothing, but incredibly frustrating to be limited to those times. On one hand, we were encouraging people to train three days on/one day off, as with the CrossFit Workout of the Day, but, on the other, telling them that they could turn up to work with us only twice a week.

Luckily, CrossFit is infectious, and after a short time we noticed that training sessions being run by the owner started including wall ball shots and thrusters. Squats started to get deeper, and the existing group fitness sessions started to be run "for time." Little by little we were influencing the environment and opening a space in the owner's mind. Our patience was paying off. Before long, our sessions became well-known and we were referred to as "those crazy CrossFitters." This hallmarked an acceptance by the owner that we "walk the walk," and we seized on it to negotiate an additional session to bring us up to three sessions per week. Negotiating is much easier once you have gained respect.

The more that we were in the dojo, the more we got to talk about CrossFit. The more we talked about CrossFit, the more the owner became interested and the snowball started. After about three months we had our first win, with the owner agreeing to allow chalk in the gym, providing "we cleaned the crap up." To me, this was a landmark moment. Teaching CrossFit without chalk is like teaching kickboxing without punching bags, and this analogy struck a chord with him.

To my mind, the acceptance of chalk symbolized that we were moving toward having a real CrossFit environment. Next was the

Partnering with a Martial Arts Dojo

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whiteboard. The dojo owner is a clean freak and the whiteboard, which to me is a universal connector within the CrossFit community, to him was simply more mess. But like the chalk, it too was eventually allowed, and we were well on our way to creating the environment we wanted. Our classes started to grow and within another two months we were regularly squeezing 10 to 14 people into the very small space allocated for CrossFit. Despite our mess and the obvious inconvenience of having so many of us crammed in there, the owner couldn't help but like what he saw—a growing group of people who were willing to train as hard as his fighters and were getting *results*. The penny dropped.

Our defining moment came about two months later. If finding the right dojo was our first stroke of luck, our second came when the owner expanded the dojo just as we were busting at the seams in the small area allocated to us. His expansion included a large martial arts training area. By this stage we had become a valued tenant and, thanks to a voluntary rent increase, after our numbers grew, we were also an essential revenue stream in his business plan for the expansion. This meant that we also got considerable say in the design and layout of the new area. As a result, the expansion included purpose-built pull-up bars, wall ball targets, climbing ropes, and mountings for rings. We quickly capitalized on the changed environment and purchased as much CrossFit gear as we could afford—medicine balls, bars, rings, kettlebells, and parallettes.

Once we built it, they came. CrossFitters started turning up and within a short period of time, two great things happened. One, we had a lot of CrossFitters participating in each session, and, two, the sessions became true CrossFit. Within a year we had a truly viable operation. The atmosphere became so vibrant that the owner couldn't help himself and started joining in himself. It took him just one workout (and a visit by Pukie), and I had another committed CrossFitter. Martial artists love competition and intensity and purposeful movement, so it is no surprise that they love CrossFit.

Once the owner was CrossFitting, negotiating additional session times became a breeze and we essentially got open access to the training area at any time when it wasn't being used for martial arts. All of a sudden, after twelve months of being patient, I almost couldn't keep up with the changes. The owner "got it" and started pushing hard to provide everything we needed to be able to do all of the sessions as prescribed. One day he turned up with 400 kilograms of secondhand bumpers that he found at an auction. Another day he brought in squat racks that he'd found on sale. He built homemade kettlebells, bench stands, and harnesses for weighted pull-ups. Additional pull-up bars were installed on the punching bag racks. He had storage cupboards built and changed the layout of the space to accommodate the CrossFit session requirements.

The most important change, though, was the total acceptance of CrossFit. We no longer got into trouble for doing handstand push-ups against the wall or deadlifting without shoes. The squat rack was moved away from the mirror. We were allowed to drop weights and CrossFit fitness standards were put up on the wall.

Partnering with a Martial Arts Dojo

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This has been a remarkable evolution. Fourteen months after affiliating, we have the box that we always wanted—even though it's not ours. Our outlays are similar to what they'd be if we rented space in a commercial gym, but our environment is similar to what we'd have if we owned our own premises. I still pinch myself.

But it is not all smooth sailing. We are still sharing a space and unfortunately we are sharing with grapplers. Don't get me wrong, I love grapplers, but sharing a space means that our surface is covered with soft wrestling mats. What is a great surface for wrestling is a crappy surface for most of CrossFit. The surface is fragile, unstable, and difficult to keep clean. Lifting on it is hopeless and we are constantly scratching our heads trying to come up with a solution for dropping weights without having to go outside. Despite our best efforts, slowly but surely we are trashing the mats, and sooner or later, it will become an issue. We are also still limited to times that are not being used by martial arts classes. This in effect means that we cannot run any night or late afternoon classes, and this is very unlikely to change. At some point this will become a deal-breaker as the affiliate continues to grow, but that is a problem for later. Until we are ready to have our own box, we will continue to compromise where we have to. For the moment, this means it is not really feasible to run a CrossFit Kids program, as it is hard to find kids who can train at 5:00 a.m.

We are also starting to face challenges created by cross-pollination within the environment. We have martial artists and gym members wanting to do CrossFit and CrossFitters wanting to do martial arts. In many ways, this is great, but it also creates many headaches, not the least being the financial implications: how do you charge for this, given we are separate businesses?

But all in all, it has been a great relationship and an option that I would suggest that all new affiliates consider. Drawing on our experience, here is our nutshell guide to successfully operating out of a dojo:

1. Accept that it is going to take time to mold the environment. It is not feasible to walk in on day 1 and expect to move furniture. It is a new relationship and, as in any new relationship, it takes time to get to know each other and set boundaries. In the same vein, in the beginning you also need time apart, so don't go for total immersion. It is important to start out softly with a few sessions and make small incremental improvements and add sessions as you build trust.

2. Be open to compromise at a practical level but never at a philosophical level. Find ways to fit in with the existing operation as much as possible and you are more likely to gain acceptance.

3. The relationship will work only if both client bases continue to get what they need out of the environment. Look for ways that CrossFit can benefit the martial artists beyond just offering training. Share equipment, respect the space and their needs, and help out wherever you can. Be useful. We offer a value-add by opening up the facility at additional times so existing clients get greater access. We cover the gym when the owner needs to grab lunch. In general, having us around makes his life easier.

4. Be clean. Mixed martial artists hate rolling on dirty mats. After every session we routinely disinfect and mop the mats. Stand-up guys hate slipping on sweaty floors. Be considerate of the environment.

5. Be sensitive to the fact that the existing clients of the business have a trust relationship with the owner. Teaching CrossFit in their environment creates a contrast effect and a "softly, softly" approach is required to influence and correct technique to CrossFit standard without undermining existing trust relationships. A great deal of sensitivity is required when working in someone else's space. Being patient is important. I have started working with clients from the other side of the business because they like what they see with CrossFit, but I always include their existing martial arts training and coaching in the equation. Be careful not to undermine the viability of the other side of the business by inadvertently poaching clients and in turn taking revenue from the owner.

For CrossFit Brisbane the relationship continues to evolve and our affiliate continues to grow. For the moment, the arrangement is perfect. I can't say what the future will hold for us, or where we will be located even six months from now, but I can tell you that tomorrow I will walk into the dojo, say good morning to my loyal crew, and run a bundle of CrossFit sessions the way I think they should be run, and that is all that is important. If you are affiliating or thinking about it but don't have your own space, consider joining forces with a martial arts dojo (or other similar venture) and, like us, you may find yourself twelve months farther down the development path then you expected.

Matt Swift is the owner of CrossFit Brisbane in Australia. He has been CrossFitting for two and a half years and affiliated fourteen months ago. He is a keen Olympic lifter and martial artist.

Row Corrections

Part 1 (Video Article)

Greg Hammond

Online Video

Video Article (10:03)

http://media.crossfit.com/cf-video/CrossFitJournal_GregC2RowFixes1.wmv

http://media.crossfit.com/cf-video/CrossFitJournal_GregC2RowFixes1.mov

In this video article, Greg Hammond of Concept2 Rowing coaches the basics of technique on the indoor rowing machine. He works with two quite different CrossFit athletes in front of an audience to demonstrate rowing fundamentals and corrects their various mistakes in real time, with obvious positive results.

The point is clear: Faster rowing doesn't come from faster movement (i.e., higher stroke rate). It is the result, rather, of more power transfer and increased efficiency. In short, better, faster rowing (i.e., increased output) comes from better technique. (Maybe you've heard this argument before, in a few other contexts…?) Hammond and his volunteer models explain some of the specifics of what that really means when you're the one in the seat.

Greg Hammond has worked for Concept2 Rowing for 11 years, most recently as a liaison to the CrossFit community and to fire and police departments and moto/action sports groups. He has a Bachelor's degree in health science and formerly owned and operated a fitness business called Hammond Corporate Wellness. He was a Crash Rescue Firefighter for the Air National Guard for 8 years and was a longtime rugby player until he took up the safer sport of motocross/enduro riding instead. He has used indoor rowing as part of training for his sports for the past 17 years.

Form for Runners, from Head to Toe

Keysha McClenton-Benzing

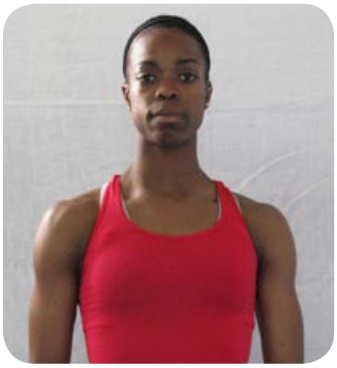
Have you ever wondered "What is proper running form?" or "Am I doing this right?" while getting some in a CrossFit workout or just out on leisure run? If you watch track and field runners, you might become even more confused. Some runners are smooth like gazelles; some are awkward like fish out of water. Some have powerful knee drives while others have none and shuffle their feet. So why is there so much variance in running technique and form? Because every person has their own running style depending on their individual physical differences.

Exactly how these biomechanical elements are expressed in your individual style always depends on your physical characteristics and body structure. However, while everyone has their own style, there are still basic, biomechanical positions and functions that are required to be the most energy efficient, to generate the most power and speed, and to prevent injury.

The following is a mechanical breakdown from the head down to the feet.

Head

Look straight ahead naturally and scan the horizon. This will help keep your neck and back in alignment. Limit looking down at the ground or any unnecessary head movement or closing of the eyes. How you position or hold your head is crucial to your overall posture. Your body posture dictates how energy is transferred through your body and determines how efficiently you run.



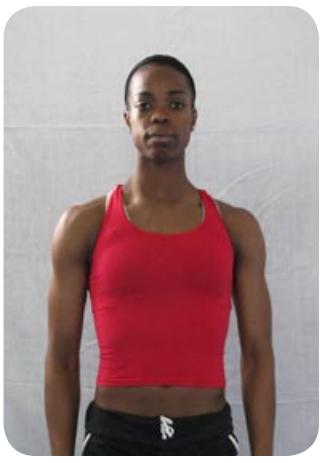
Good

Not so good

Shoulders

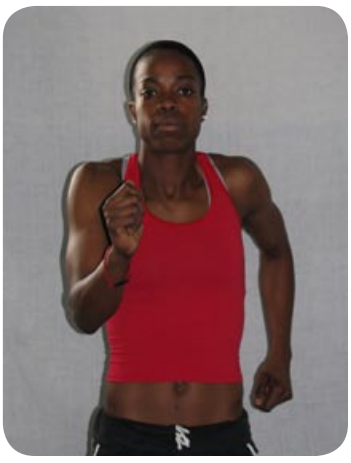
Shoulders play a crucial role in keeping your upper body relaxed while you run. Maintain an upright body position while relaxing the shoulders and face. Less tension in these areas helps promote a more relaxed, free-flowing movement throughout the entire body.

Your shoulders are a pendulum. For optimal performance, your shoulders should be low and loose. They should also remain level. Minimize and eliminate dipping side to side as well as any kind of rotation with strides. As you fatigue during a workout, don't let your shoulders creep up toward your ears. While running, the body works through a series of muscle actions, both concentric



Good

Tense shoulders



Not so good

Form for Runners, from Head to Toe

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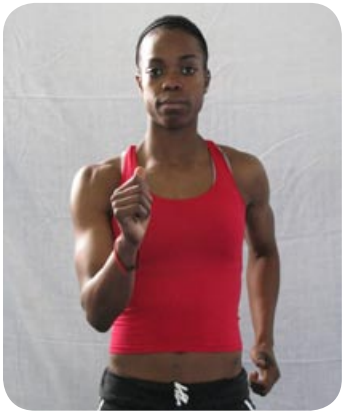
(muscle shortening) and eccentric (muscle lengthening). Part of what makes some of us faster than others is how rapidly our muscles can switch from concentric to eccentric muscle action as well as how many muscles we can activate at the point of impact. If your shoulders are tight, most likely you are getting tense elsewhere, and this means that some of your muscles are not contracting and relaxing like they should. The result is a decrease in power/force production and therefore speed. Usually, if you feel tightness creeping in, giving your arms and shoulders a good shake can help release the tension and remind you to loosen up.

Arms

The arms are used for balance, for helping generate and sustain momentum, and to assist your body in forward propulsion. They should also be in a synchronized rhythm with the legs. Maintain a relatively fixed 90-degree angle in the elbow. The arms are driven only one direction: back. When you drive your arms back, it creates a stretch reflex or eccentric loading on your shoulder joint that produces a natural (unforced) powerful upswing in sync with your knee drive.

You must make sure that you are getting an efficient elbow drive backward, that your elbow angle is not too sharp, and that you are not "pumping" your arms forward. To resolve these issues, the track and field world uses a phase called "chin pocket." That is, when you drive your elbows back (still maintaining a relatively fixed elbow bend of 90 degrees), your back hand should reach to where your shorts pocket would be. The front hand, which is in the powerful upswing, should be "blocked" or stopped right as your hand reaches chin height, then immediately driven backward and down, toward the pocket again. Also be sure to limit any crossing of the body with your arms. Your arms give direction to the momentum that you are generating. You want to go straight ahead as fast as possible, so the path of your arms should be straight back and forward at your sides. Crossing the body with the arms causes some torso rotation and directs the momentum from side to side, making you less efficient slowing you down.



Good

Eliminate crossing the body with the arms

Not so good

Hands

The hands can be kept open or closed, as long as they are relaxed. I personally go with the closed hand. My hands want to naturally close (from my Olympic lifting training, I think), and I do it strictly for comfort, since I feel really awkward forcing a straight hand. If you decide to go with a closed hand, imagine yourself using an old-school Nintendo or Super Nintendo controller. Lightly place your thumb across the middle phalanx (center bone) of your pointer finger. Lightly close your palm and envision holding something very delicate so that you do not clench your hands. Clenching the hands tends to happen very easily, especially when fatigued. A benefit of using an open hand is that it makes it difficult to clench your hands, which leads to the same tension problems as holding your shoulders tight.

Open palm

Closed palm

Form for Runners, from Head to Toe

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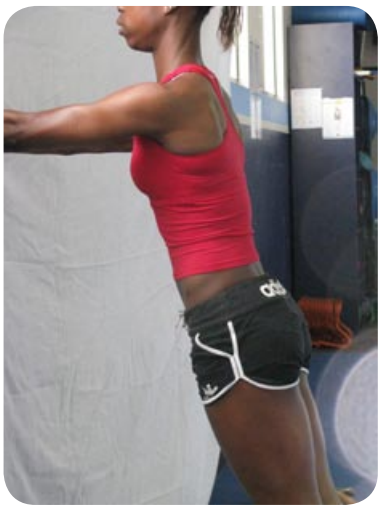
Torso

The position of your torso is directly affected by the position of your shoulders and head. Your head should be stable, looking straight ahead, and your shoulders should be nice and relaxed with minimal rotation and dipping. Engage your trunk muscles with a slight forward lean to help support the upper body over a moving lower body. Hold your sternum high and visualize long extension through the spine. This allows the chest to expand and promotes both optimal lung capacity a good stride length. This has been termed "running tall" in the track and field world. Your torso dictates the position your hips will be in while running. It is critical that you not let your torso hunch over too far in front of your center of gravity. If you do allow your torso to hunch forward in a sprint or run, your pelvis will tilt forward as well (anterior tilt), throwing the rest of your body out of alignment. This is not an efficient way to run.

Good

Hips



Good: Neutral pelvis

Not so good: Anterior pelvic tilt

Your hips are your center of gravity, so they are crucial to your running posture. When running, you want to have your pelvis rotated slightly backward (so that your sacrum is in line with your lumbar spine, opposite of an anterior tilt). If you put your hands on your hips (the bony part), your fingers lie on the portion of the iliac crest called the "anterior superior iliac spine" (ASIS). These points of the hip move slightly forward as the legs swings through and prepare for the foot strike. This hip extension provides forward propulsion as well as momentum while being very energy efficient.

Form for Runners, from Head to Toe

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Legs

While sprinting or running, you want to have a relatively high knee drive. You want to aim at getting your foot above your opposite knee. A higher knee drive ensures a more explosive hip extension and helps you obtain maximal leg power. As soon as your knee reaches optimal height, you want to actively drive it back down toward the ground. This will help prevent "floating" problems. The more time spent off the ground means the slower you are running! Upon ground contact, you want to have your knee slightly bent to help absorb landing forces and to assist storing some of the force as elastic energy. That energy can immediately used to push off the ground in your next stride.

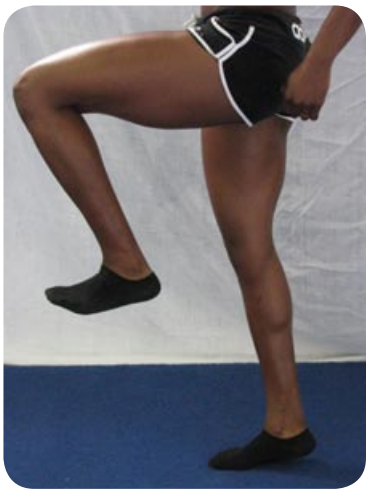
Ankles/feet

One of the key elements to your speed is what we call the "foot paw." The term comes from the move a cat makes while scratching a post. While sprinting, you bring your drive leg up in front of your body and then actively drive it back toward the ground. Let the knee drive the leg forward with the foot strike directly under your center of gravity (your hips). Your feet need to stay under your hips, and the hips underneath your torso. This maintains your body's center of gravity. In preparation for striking the ground, keep your ankle flexed and toes pointed up toward the sky. This position of the ankle is termed "dorsiflexion." Upon striking the ground, you want to make instant contact with the ball of your foot (mid sole to your toes) and imagine yourself pulling the ground behind you with your foot, as if you are "pawing" the ground. Not only does this generate greater forces to propel your body forward, but it produces minimal braking forces. The speed of the leg pawing the track will equal the speed of your body. You want to strike the ground with the ball of your foot for a very important reason; it reduces the breaking forces of your landing. Striking with the ball of your foot and pulling it through engages your posterior chain (glutes and hamstrings). You now have two of the most powerful muscle groups on your body aiding in propelling your body forward. These muscle groups help bring your center of gravity forward and ensure that when you push off the ground with your ankle, the momentum of your body is directed forward and not up.

Remember that your body is traveling forward and that it has momentum. Newton's laws state that things in motion like to stay in motion unless acted upon by another force. If you heel strike when your foot contacts the ground, you create a braking mechanism that detracts from your ability to gain speed and to direct all your force into making forward progress. Also, when you heel strike, your body is no longer in a position to absorb and use the landing forces. The momentum from your body then goes to your foot and your body takes the shock. If heel striking is repeatedly done over a period of time, it can lead to injury.

Good

Striking the ground with the ball of foot



Dorsiflexion

Not so good

Heel striking

Plantar flexion

Form for Runners, from Head to Toe

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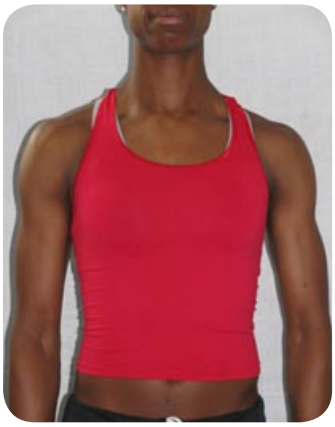

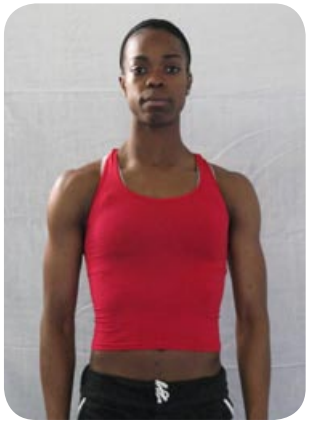

The whole package

In general, good sprinters and runners are mechanically sound, springy, and light on their feet. They also have very minimal variation in their running form, whether jogging or performing a max-effort sprint. Strong supporting muscles will help you maintain efficient running form. When these muscle fatigue, your form deteriorates. When you first start trying to run with perfect form, your body will fatigue very quickly, so it is important to think about maintaining proper form. Being consciously aware of your mechanics is very critical for your further speed development and injury prevention. I am aware that it is very difficult to think about your mechanics during a race or the middle of a workout, but reminding yourself of a few key points when you start to fatigue (mantras work well), can help you refocus on your mechanics and will optimize your performance.

Remember that everyone is going to look a little different, but still strive for your own perfection. Your body will naturally produce its own running style. You must also be very patient, especially if you have prior running experience and have developed poor habits. The human body learns motor patterns, and it can sometimes be difficult, not to mention frustrating, to break the bad habits and learn new ones.

Keysha McClenton-Benzing earned her B.S and M.S in kinesiology from California State University, Fullerton, while also competing for the Titans as a four-year varsity letterman in cross country and track. She was three-time athlete of the year, two-time All-Conference, and two-time NCAA Nationals qualifier, and she holds two school records in the 800 meters and the 4 x 400-meter relay. She and her husband Skipp are both strength and conditioning coaches at the University of San Diego. She is still competing as a National-level Olympic weightlifter and an Olympic Games hopeful in the 800 meters.

Keysha gives special thanks to Ed Nuttycombe, Jim Stinzi, Mark Guthrie (University of Wisconsin, Madison), Kenny McDaniel (Arizona State University), Mike Powell (University of California, Los Angeles), and Brandon Campbell and John Elders (California State University, Fullerton): "They are all outstanding track and field coaches who have all been involved in my training and have influenced my training philosophies today."

Corporate Wellness

Jeremy Thiel

"It [CrossFit Central's corporate wellness program] was a whole new way of people relating to each other. It really was probably the best thing I ever did for morale in nearly 25 years of being in business."

–Sherry Matthews, president of Sherry Matthews Advocacy Marketing

As leaders in fitness it is our duty to supply individuals with the skills and knowledge needed to change their lives. There is no better place to influence a large group of people than inside modern-day corporate America. Many of these hard-working individuals are unhealthy, unhappy, overworked, and have high stress levels. All of these increase a person's likelihood of falling victim to illness as well as negatively affecting the corporation's productivity, morale, and medical costs. Employees' most common excuses for not exercising are that they can't find the time or the money to go to the gym. A corporate "wellness" program defies this mentality by bringing the workout to them, making it a common part of the corporate culture, and increasing employees' overall fitness and wellness. A healthy lifestyle in a corporate setting will always lead to increased productivity, reduced absenteeism, and a much more energetic environment. The program, by design, is intended to ameliorate the corporation's, and the employee's, bottom line.

It may seem as though starting a corporate wellness program would be a large undertaking, but it is very simple. At CrossFit Central, we took the structure of our boot camp, which is founded on and utilizes CrossFit, and applied it to the corporate world. Working with large groups of diverse people within our boot camps had given us a glimpse into the future of what we could accomplish with corporate wellness programs.

CrossFit Central's boot camp structure was a result of two years of hitting the pavement. I began by applying Coach Glassman's advice to start with one person and have him invite his friends who, in turn, invited their friends. I planted the seed and watched it grow. Through the two years of building this structure I found many things that didn't work, but I also found what *does* work. From that trial and error process my team and I have created a systemized boot camp structure. Now, two years later, we are running seven boot camps at various locations across Austin, CrossFit classes inside our own facility, and four corporate wellness programs, as well as several more currently under negotiation.

Our boot camps strive for—and attain—excellence. The program attracts many incredibly talented, business-minded, and influential clients. These clients have seen tremendous results and enjoy the camaraderie they develop with their fellow boot campers. A few of the campers enjoyed this sense of fellowship so much they wanted to offer this type of fitness program inside their own businesses. This is how our corporate wellness programs began.

Corporate Wellness

...continued

The system

All inquiries about our corporate wellness programs are followed up by an initial consultation with us. In this meeting we determine the needs and goals are of the specific company. We offer three options for the company to choose from, varying in the degree of intensity. These options are priced according to the number of participating employees as well as the degree of intensity.

Below are descriptions of the three program levels, with pricing based on a company with 12 to 15 participating employees.

Level 1 program

The most complete option offers a wide range of fitness services, at a monthly cost of $3600 (for two group training sessions per week) or $2400 (three sessions per week).

1. Two or three one-hour group fitness training sessions per week (pricing provided for both options).

2. A monthly development class/seminar on a topic of interest (functional fitness, nutrition, etc.), to be determined based on the interests and needs of Company X's participants. Held on site at Company X.

3. Goal setting for each Company X participant at the program starts with monthly one-on-one follow-up sessions to discuss goals, interests, progress, nutrition, and other guidance as needed with a CrossFit Central coach.

4. A monthly body assessment, including using ACSM guidelines for determining body fat and body measurements. Reporting within five days back to the Company X staff member via e-mail. Assessment done on site at Company X.

5. Online community resource for communication, polling, questions, tips on health/wellness, and overall team building.

6. Unlimited e-mail and phone consultations for each Company X participant.

7. Additional programming for sports or fitness related events.

Level 2 program

The Level 2 option includes many of the same services, with a bit less individualized consultation with and guidance from CrossFit Central staff. Monthly pricing is $3000 for three group training sessions per week and $2000 for two sessions per week.

1. Two or three one-hour group fitness training sessions per week (pricing provided for both options).

2. A monthly development class/seminar on a topic of interest (functional fitness, nutrition, etc.), to be determined based on the interests and needs of Company X's participants. Held on site at Company X.

Corporate Wellness

...continued

3. A monthly body assessment, including using ACSM guidelines for determining body fat and body measurements. Assessment done at CrossFit Central's facility on the first Sunday of the month, by appointment.

4. Online community resource for communication, polling, questions, tips on health/wellness, and overall team building.

Level 3 program

The level 3 program includes the same training options, with fewer supplemental services, at a monthly cost of $2400 for three group training sessions per week and $1600 for two sessions per week, per participant.

1. Two or three one-hour group fitness training sessions per week (pricing provided for both options).

2. A monthly body assessment, including using ACSM guidelines for determining body fat and body measurements. Assessment done at CrossFit Central's facility on the first Sunday of the month, by appointment.

3. Online community resource for communication, polling, questions, tips on health/wellness, and overall team building.

The proposal is flexible according to the company's specific needs. After we all agree on a proposal that meets the company's expectations and needs, a contract is written up and signed. The contracts are for three, six, or twelve months. When signing a six or twelve month contract, the company receives a discounted price.

The equipment used in the program is all mobile. We use PVC pipes, medicine balls, running ladders, dumbbells, and portable mats. The workout is conducted on site at the corporation's location, typically outside. We make use of natural obstacles, including differing terrain and hills. If the company does not have an indoor space or close proximity to functional landscape, we turn the parking lot into our designated workout space. The CrossFit Central coach conducting the program transports all the portable equipment to each workout. This is an added benefit to the company, as it relieves them of the need to purchase equipment or store it inside their business. The group training sessions are conducted at one allotted time of the day. This is typically at the end of the workday, depending on the most convenient time for the majority of participants.

Sample Corporate Boot Camp Workout
from CrossFit Central

Warm-up

00:00 – 00:05 Squats & push-up rotations, 10 reps, 2 rounds

00:05 – 00:10 Dynamic warm-up:
- High knees
- Butt kicks
- Punter kicks
- Lunge rotations

Agility ladder, each movement x 2:
- Forward run, two feet in each hole
- Forward run, one foot in each hole
- Lateral shuffle, both sides
- Icky shuffle
- Single-leg hop, right leg, left leg
- Hopscotch

00:10 – 00:15 Burgener warm-up w/ PVC pipe, with overhead squats, 10 reps x 2

Main workout

00:15 – 00:30 4 rounds, with a partner, for time:
- Naturals x 10
- Lying overhead throw with med ball x20
- Push-ups x 10

For the people who finish first:
- Standing Dynamax med ball rotations, 2 x20

00:30 – 00:50 3 rounds, for time:
- Dumbbell renegade rows x 12
- Split squat push press x 12
- 40-yard sprint

Finish with 3 rounds, with 20 seconds of rest between:
- Med ball walking knee bumps, 30 feet
- 10 ball slams

Cool down and stretch
00:50 – 00:60

*We always keep extra med balls on hands for additional rotational work if there is time left

Corporate Wellness

...continued

Who pays for this?

There are several ways a company can choose to pay for one of our corporate wellness programs. The company is then billed according to their contract. Typically, an invoice is sent at the beginning of each month.

1. *The employer pays for each employee in full*

The cost of the program is considered part of the employee benefits package. The wellness program can be used as a recruiting tool or incentive for potential employees.

2. *The employer pays a partial amount for each employee*

The cost of the program is added to the employee benefits package as an incentive. The company pays a partial amount of the cost, and the employee pays the remainder.

3. *The employee is reimbursed*

The employee pays the cost of the program up front and is reimbursed at the end of the program term according to the number of group workouts he or she actually attends. If the employee attends all the classes, the company reimburses them 100 percent. This system is unique and gives the individual an opportunity to truly invest in themselves and the company a low-risk way to offer the benefit for those who make use of it.

Currently boot camps are very trendy within the fitness community; mass markets desire boot camps for their fitness routines. I know corporate wellness is the next step and will take the health of each employee up a notch due to its holistic nature. This system may seem complex, but it is all about communicating with your existing client base. The success of an individualized corporate wellness program is simple: Find a need and fill it with a solution. The efficient, effective, safe nature of CrossFit and its applicability to group training make it ideal for this scenario.

The future

Corporate wellness programs level the playing field for all employees. They put on their workout gear and get into position for the warm-up, and suddenly everyone is on the same level and an equal opportunity for success is created, regardless of position within the company hierarchy. The results and effects of this can be surprising. Sherry Matthews, who offers a CrossFit Central Corporate Wellness Program for her company said, "It's a total reversal of who are the stars out in the parking lot and who are the stars in the office, and it was a whole new way of people relating to each other."

One of my favorite aspects of running a corporate wellness program is that you become a part of the business culture and a vessel that is used to grow their business. At the same time, the company inevitably becomes a part of your own business culture and allows new outlets for growth. It is a great reward to know that you are truly investing both in helping individuals become fitter, healthier, and more productive *and* in helping a company to become more fruitful.

Jeremy Thiel began Olympic weightlifting at the age of 12, power lifting at the age of 15, and kettlebell training at 22. Jeremy is the co-founder of CrossFit Central in Austin, Texas, and has over eight years of experience training large groups. He is a level-3 CrossFit trainer, an Olympic weightlifting coach, and a Trigger Point Ultimate practitioner. Jeremy has trained thousands of high school athletes through his youth strength and conditioning company, PowerPlant Athletics.

Where is Your Body Weight?

The Key to Efficient Movement

Michael Collins

You may have heard of the Pose method of running. But Pose is not specific to running. It is actually a method of *movement* that apples to other sports as well. Pose is about learning the fundamental "pose" position of your sport's movement pattern that allows you to harness the natural laws of energy and work with them with your own body and muscles. The key to this is understanding where your body weight is supported, and how forces such as gravity, ground reaction, torque, and buoyancy (in the case of swimming) affect your control of your own body weight as it moves through space (or the water).

Any movement will be more efficient and effective if the muscles "service" where the body weight is going instead of just trying to propel the body. Movement and force go naturally in the direction of the body weight. If you throw a punch at someone but are falling backward, the punch will carry very little power or force. If your mass is falling in one direction, you must get control of your body weight before you can move in another direction.

Here are few details of how all this applies to running, swimming, and cycling, the three components of triathlon.

Running

Body weight should be supported on the ball of foot with a bent knee for as short a time as possible. The longer the foot is in contact with the ground, the more forces are absorbed up into the body for injury potential, the more muscle contractions are required to support the body weight, and the slower your running will be.

The goal of Pose running is to keep your time in support (i.e., in contact with the ground) as short as possible, so, rather than trying to push away from the ground with your feet and legs, you should pull your foot up quickly after each ground strike. Your feet, hips, shoulders, and head should be aligned, with the mass of the whole system leaning forward slightly, as if you are "falling" forward. Move your feet quickly, hold your arms high, and keep your shoulders relaxed.

(For more information on Pose running, see my articles and Brian MacKenzie's in the December 2007 issue of the *CrossFit Journal*.)

Swimming

If a person is sitting in the very back of a canoe, the back end of the boat will be low and the front will be higher or even popping out the water. If the weight shifts too far to the front of the boat, it will begin to plow into the water nose-first and slow down. If the person moves to the center of the canoe, the weight will be more evenly distributed and the boat will travel faster through the water. If the weight is in the middle of the boat but leaning toward one side, the boat will tip sideways and some of its energy will be diverted into turning rather than into propelling the boat straight ahead.

This same principle applies to a swimmer moving through the water. The body will naturally be heavier from the bottom of the lungs down toward the legs than from the lungs up, which results in most people swimming "uphill" and expending a lot of energy trying to keep their legs up. Good swimmers are able to balance their bodies without using much energy to do so by maintaining good postural control and keeping the front end down so the back end can stay up. This frees up the muscles and cardio system to work on forward propulsion instead of trying to stay afloat (not drowning). Getting a vertical forearm early in the freestyle stroke (see photo next page) is critical to forward propulsion, but it is impossible to do if the body position is too "uphill."

Online Video — Swim Posture

http://media.crossfit.com/cf-video/CrossFitJournal_CollinsSwimPosture.wmv

http://media.crossfit.com/cf-video/CrossFitJournal_CollinsSwimPosture.mov

"Falling" forward properly.

Landing too far in front.

Additional resources

For more information on how to swim freestyle (and the other strokes) efficiently, check out these useful video and online resources:

- Richard Quick Series – Posture, Line, & Balance
- Richard Quick Series – Winning Freestyle
- ChampOnline swimming videos
- Go Swim series

Where is Your Body Weight?

...continued

Getting a vertical forearm early in the stroke helps keep the swimmer from trying to swim "uphill."

Cycling

Where is most of this athlete's body weight?

If your weight is too far back and mostly on the saddle when cycling, you will not be able to maximize the use of your body weight for power. Look how the top time trialists sit on their bikes. They are typically sitting very close to the nose of the saddle, with very little of their body weight back on their butt. It's over the pedals and being shifted back and forth from one pedal to the other while keeping their upper body very still.

The most powerful phase of the pedal stroke is from 1- to 4-o'clock, but it happens so quickly that it should feel more like it's from 11- to 3-o'clock. Immediately after that power phase, the driving leg should be "unweighted" to allow the body weight to shift to the drive of the other leg. If the bodyweight and leg power are used to push all the way to the bottom of the stroke, it is difficult to get it around the bottom of the pedal stroke, so the top leg must "push" the body weight and leg back up.

Conclusion

To be successful in endurance sports, learn how your body weight can be your primary movement force and use your muscles to "service" your body weight instead of the other way around.

Efficiency of movement is achieved by executing correct technique with proper timing, allowing you to work in concert with the laws of nature while using the least amount of muscular and cardiovascular output necessary to maintain the desired speed.

Michael Collins is a level-4 certified Pose Method coach and also trains and certifies other coaches in Pose training. He owns Multisports Orange County in California and is head coach for Orange County's Nova Masters swimming program. He can be reached at mcollins@multisportsoc.com or 949-338-6682.

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