THE

CrossFitJournal

October 2016

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A rattlesnake bite nearly claimed Anthony Kemp's life. He survived minus one limb, an amputation he calls "a paper cut."

On Feb. 7, 2015, 23-year-old Kemp set out on a hike with two fellow Marines. They had just PR'd their back squats and felt a celebration was in order, so they drove to the Wichita Mountains Wildlife Refuge, a beautiful 59,000-acre expanse that sits about 24 miles northwest of Fort Sill in Oklahoma.

"We decided to go to a part of the preserve that we had never been to before," Kemp recounted recently.

The goal was a tall hill about a mile out. The three men got to the hill quicker than expected, so they decided to go even farther out—to the next hill. The trio proceeded down the opposite side of the hill, walking single file. Kemp was in the middle. About 10 steps in his buddy Matt Holliday asked Kemp to take a picture of him for Facebook. The two men switched places, leaving Kemp last. That's when it happened.

"I felt a ridiculously sharp pain in my left calf."

Kemp felt something pierce his skin and clamp down, and he heard a hiss.

"I'm from Queens, New York, so I really don't know shit about snakes," Kemp said. "By the time I looked down at my leg, my calf was instantly swollen, I was bleeding, there was venom coming out of my leg."

Doctors would later tell him he was bitten by a 6- to 8-foot-long Western diamondback rattlesnake.

"I never saw the snake."

Kemp alerted his friends. They had to get him to an ER. One of them called 911.

"We don't know how to find you. We can meet you at the car" is what Kemp said a 911 operator told his buddy.

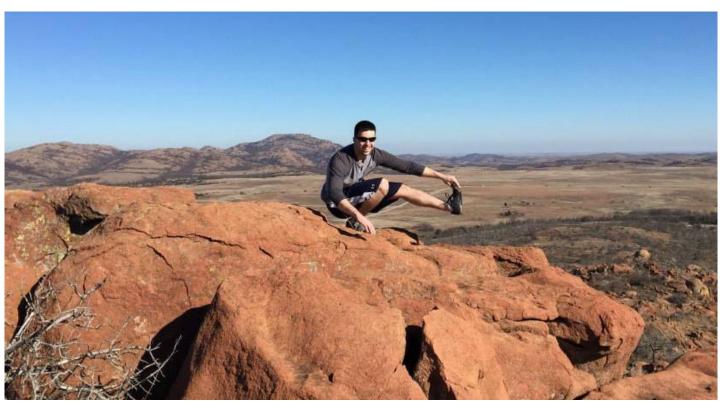
Kemp would have to traverse hills, rocks, steep inclines and even the top of a dam to get back to where they had started. In that moment, he remembered one of the coaches at Radd CrossFit in New York.

"We used to joke all the time, ... 'Hey man, don't be a pussy," Kemp said. "For whatever reason, I heard his voice in my head. I got up, I started taking steps."

It would take roughly 20 minutes to get back to the car, he figured.

"As dumb as this sounds, I kind of related it back to a 20-minute AMRAP."

He took it slow, kept moving. Five minutes in, his calf locked up. Ten minutes after that, his entire leg seized. Kemp was nauseated. He was having trouble breathing.



The photo above was taken on the hike before a snake bit Kemp and he had to fight for his life. The Marine was back to CrossFit within two months.







"It seemed like a marathon," he said. "At this point, I'm like, 'Wow, this is kind of bad."

It took him 45 minutes to make it back. A park ranger was waiting with oxygen. Kemp was in and out of consciousness.

"At this point, I'm like, 'Oh, shit, I might die."

The ambulance arrived an hour later.

"The EMT took one look at me and said, 'Holy shit, we need to get this kid on a helicopter fast.""

Ten minutes later, Kemp was on "the bird," where he flat-lined.

Once at Comanche County Memorial Hospital in Lawton, he flatlined twice more. Medical staff gave him 32 doses of antivenin. His parents flew in from New York and doctors expressed uncertainty over his mortality. Kemp was transferred to OU Medical Center in Oklahoma City, about 90 miles northeast of Lawton.

"They took one look at my leg and said, 'This has to go."

Kemp ended up undergoing three amputations, the last one making him an above-the-knee amputee. By April 1 he was back to doing CrossFit, which he had started in 2012.

"No one really knows to this day why I survived. From my understanding, at least what they told me, no one's survived that much venom."

Kemp recalled that one of the doctors asked him if he had been in good shape. The venomous bite hadn't only affected Kemp's leg but also his organs. His kidneys, liver and lungs failed, and he suffered from rhabdomyolysis, a condition that causes muscle tissue to break down and release into the blood.

"As bad as my body was, I was still able to breathe on my own," he said. "I had rhabdo, but my kidneys were still working to a decent level. I kind of (attribute) all that to being in shape."

And although he's lost most of his left leg, Kemp shrugged it off.

"It could've been worse," said the CrossFit Level 2 trainer. "Everyone hears that story and they think, 'Wow, that sucks.' I thought that, too, and then I got to Walter Reed. I was the lucky one—I only lost one leg."

At Walter Reed National Military Medical Center in Bethesda, Maryland, Kemp saw triple amputees who had lost so much of their limbs they couldn't use prosthetics.

"They call single amputees 'paper cuts," Kemp recounted, "because at Walter Reed it's not a big deal."

He continued: "Shit happens. It's that simple. You can either (stay) in the past or move forward."

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When you first watched "The Shawshank Redemption," the ending probably left you wondering how Andy Dufresne bested the warden and his crew.

Because you wanted to relive that excitement, and because Morgan Freeman's voice brings serenity to life, you watched the movie several more times.

Then a few months, years maybe, go by in which you don't watch the movie, until one day you see it's on TV. For old time's sake, you flip it on and catch it right at the perfect part: After spending 60 days in the hole, Andy is talking to Red about hope and moving to a place that people still don't know how to spell.

Then you catch something Red says that you missed before: "Those are just shifty pipe dreams, Andy."

"Oh my God!" you scream at the television screen. "How did I miss that?"

Then, while watching the movie again a few weeks later to remind yourself how stupid you were for missing the foreshadowing, you notice the warden opens the Bible to the book of Exodus to find the place where the rock hammer was concealed.

Somehow, the movie was better the sixth time through because you were able to notice and appreciate so many more nuances.

* * *

My first CrossFit workout happened in late 2005, but I started to read the CrossFit Journal around June 2006. Ten years later, I can't remember what day of the week it is or what I had for lunch, but for some odd reason I can remember just about every video or article that has come up over that time.

Now I'm an affiliate owner who has seen hundreds of kids and parents come through our doors, and I can't help but notice the direct influence the videos and articles have had on my coaching. I really consider that a plain old lucky advantage; if you weren't up on the Journal right off the rip, it's really difficult to know where to start in the 4,000 pieces of content. To help you dive in, I'd like to share a list of my favorites from the archives.

"Virtuosity" by Greg Glassman

Yo!

That is my response every single time I read this article. How can you read it and not want to go coach somebody—anybody—right away?

For me, and for many affiliate owners, being in business without previous experience can be overwhelming at first. So many suggestions are thrown at you daily, with each thrower claiming he's right and everyone else is wrong. You never know whom to listen to; it's still something I struggle with. Thankfully, the words of CrossFit's Founder and CEO help me keep complete focus on the course to success:

"What will inevitably doom a physical training program and dilute a coach's efficacy is a lack of commitment to fundamentals."

Everything in CrossFit comes back to the movements.

CrossFit affiliate owners are not in the friendship business, the networking business, the advertising business or the apparel business; we are in the business of delivering fitness. We make people move better. Building networks and friends and the like can certainly help, but coaching movement is at the core of what we do.

The bottom line is you are not a good coach unless your athletes move well without your presence. You might know a lot and be able to engage a group and come up with creative workouts, but if your athletes' habits don't reflect your ideals, then you are not doing your job.

Everything in CrossFit comes back to the movements. If you are looking to make your gym better, look no further than how your athletes move relative to those who move the best.

"Seasons, Sport and CrossFit"

This video filmed at a Coach's Prep Course actually isn't from the Journal, but it was posted as a clip on a random rest day in June 2011. On top of coaching, I was still playing college basketball at the time it came out, so Chris Spealler really had my attention. And to this day I have never seen so much great info packed into a few short minutes.

"In-season your sport takes precedence. CrossFit's maintenance. Out of season, CrossFit takes precedence. Sport takes the back burner and we work on the skill," Spealler says.

I struggled with keeping a consistent in-season training routine both as an athlete and when coaching. Spealler's fish-shaped diagram was a game changer for me because it helped keep priorities sorted. Blending CrossFit and sport-specific training still involves a lot of experimenting and tweaking from athlete to athlete, but the principle Spealler details here is sound. In fact, I still use the chart when explaining to new athletes why I want them to continue CrossFit training in season.

Spealler also touched on a subject I feel pretty strongly about: programming—specifically the lack of certainty around it.

"We know so little about the human body, and all of us are so different, that it's impossible for us to program for an entire team, or even an individual, for them to peak at the perfect time."

He also shared his views on two-a-day workouts and how he thinks they actually make him "less fit." It was a big relief for me to hear this. I still get complaints from a few gym members and outside coaches who think we need to bias programming or do more workouts. We have followed the workouts posted on CrossFit.com since we started as a school club in 2010. Programming can be debated to no end, but movement is much more concrete. I need a program that allows me to focus on coaching movement while exposing any weakness our athletes might have. I think CrossFit.com provides as close to an unbiased version of that as possible. It also gives a coach the flexibility to modify for each individual, such as an in-season athlete.

"CrossFit Kids Trainer Course: The Three Pillars" by Todd Widman

Any time I feel stuck as a coach, I always go back and read "Virtuosity" as a reminder to dig back through the CrossFit Journal archives for coaching videos relating to movement. Theory videos are great to help me to organize my thinking, and the live-coaching clips give me a great visual of how the theory looks when it's taken from the whiteboard and applied to an athlete or class.

Many of the mobility, movement and skill-transfer videos in the Reference category of the Journal provide a great balance of theory and live coaching, but Kids is another favorite category. CrossFit Kids content has always hit home in a gym in which we coach mostly middle-school, high-school and college athletes. One of the best theory videos (linked above) shows Todd Widman explaining the challenge of coaching different age groups.

So many great quotes can be found in this video—"End what you're doing before it's done," "Fun changes over time," "Do less better"—but my favorite part is when Widman details the second pillar: quality movement.



Nicholas Romanov (right) coaches Dan Bailey in Montana in 2012.



Todd Widman (right) explained quality movement is an essential part of training young athletes in the 2012 video "CrossFit Kids Trainer Course: The Three Pillars."

The three major factors in movement quality at this age are the coach's ego, the child's ego and the parents' egos. These are constantly at play every time I walk into my gym, and it's helpful to hear that a coach as great as Widman experiences the same challenges.

Widman mentions good form takes time, and it is our job to create better movers. Everything else takes a back seat. I think this should be applied to every CrossFit class, not just kids classes.

"Unweighting: A Universal Concept" by Nicholas Romanov

Something about running really drew me into CrossFit. Coming from a track background, I loved the idea of mixing in 400-meter repeats with overhead squats. It was the equalizer that helped scrawny kids like me compete with the big, strong guys—like my trainer. Brian Hassler.

Mike Collins was featured in "Intro to the Pose Method for Distance Running" while I was still in high school, and I was able to use parts of the video to improve my mile and 400 times.

By the time the Journal released videos featuring Romanov, I was coaching the Champions Club and extracting every detail I could out of those clips to make our kids better runners. But over time it felt like running was the outlier: All these movements were taught with a bunch of cues and techniques, while running was simply pose, fall, pull. I was starving for a demonstration of the Pose concept with other movements, and on Oct. 15, 2012, my wish was granted.

I must have watched the video of Romanov working with Dan Bailey on snatches 10 times in the first week of release as I tried to see the difference between shrugging and unweighting, how the poses matched up, and how Romanov corrected subtle errors with minimal talking.

For the past three years since its release, that 15-minute video is still all I've had to go on, but we have actually worked our entire teaching around the Pose Method. Cleans, pull-ups, sumo deadlift high-pulls, rope climbs and box jumps are all taught through this lens.

But it all comes back to running. The Pose concept is simply understanding the gravity hierarchy and applying it to human movement, and running is just the easiest and most transferable way to communicate the concept.



"On Elegance" by Pat Sherwood

As an affiliate owner, dozens of things are running through your mind at once. In any given two-minute period, I am contemplating how to modify a workout for an injured athlete, what mobility drills everyone will need before the workout, if we have enough 15-lb. bars for the group, how well the athletes will move the weight in later rounds, and whether or not a client will leave the gym if I stop him one more time for bad form. Everything piles up.

The simpler I can keep things, the easier it is to keep track—and I need constant reminders of this. I often get ahead of myself with individual athletes, their parents or our gym as a whole. Thankfully, Pat Sherwood gave everyone a reminder in 2013:

"Next time you need to solve a problem, explain a concept, define a term or program a workout, don't seek an unnecessarily complicated solution when an elegant one would suffice. Pursue elegance in everything."

"Don't seek an unnecessarily complicated solution when an elegant one would suffice. Pursue elegance in everything."

— Pat Sherwood

If you only know Sherwood from his role on the CrossFit Games Update Show, you are missing out on arguably the best personality in all of CrossFit. I don't know if anyone has a more practical and realistic sense when it comes to fitness. Sherwood just gets things. His article helps me take a step back, see what's at the core of what I am trying to accomplish and simplify.

I use this approach while coaching movement, when thinking about programming in general and also when writing articles. The more I simplify, the quicker I see results.

Dig Deeper

You might have been involved in CrossFit when these articles and videos came out. Or you might have done your research. But can you recall all the key points of each? If not, I guarantee you are leaving something on the table.

Coach Glassman carefully contemplated every single word in



"Virtuosity." Romanov just drew on a wealth of experience to improvise on the spot while coaching Bailey. Both feats are incredible and show true mastery of craft. To be as good as the greats, we need to get inside their heads. Many of us don't have the luxury of being in their presence all the time, but the Cross-Fit Journal gives us an unbelievably valuable glimpse into their brains with every video and article. It is not enough to just watch or read once; we need to study the material the same way we studied for exams in school.

Study will allow you to find small details, and those details make all the difference—just as they did in "The Shawshank Redemption." Remember, the core of what we do is perfecting human movement. Studying the videos and articles above—and digging up others that speak to you—will give you the blueprint for doing so

And in the process, you might stumble across other hidden gems. ■

About the Author: Chris Sinagoga is the owner of the Champions Club/CrossFit Athletic Group, and his obsession with coaching CrossFit is only surpassed by his obsession with the game of basketball. Chris is heavily influenced by MGoBlog and hip hop, and he writes for the Champions Club website. Among other prestigious credentials, he has achieved certified master status in both "Pokémon" Red and Gold versions.





I'm older than 86 percent of the Earth's population.

I'm an aging academic. I'm an aging parent. I'm an aging worker. I'm an aging trainee. And I am part of one of the largest segments of our population: 33 percent of us are over 50 years of age.

If you look at any textbook within exercise academia, you will generally find aged individuals, older individuals and geriatric populations—basically people like me—listed as a "special population."

I do not require kid-glove treatment because of my age. I will not break in response to progressive training because of my age. I am not magically disabled simply because of my age. I am not special.

So what do people really mean when they refer to older individuals as a "special population"?

An Incorrect Association

The term "special population" is a catch-all used by academic exercise organizations to describe diseased populations that require modifications to their training, and, strangely, healthy populations that might or might not require modifications to their training other than simple scaling.

According to the National Strength and Conditioning Association, those groups most commonly assigned the special-population moniker are those that have:

- Cardiovascular disease
- Pulmonary disease
- Metabolic disease
- Immunological disease
- Musculoskeletal disease
- Neuromuscular disease
- Cancer
- Psychological/behavioral disorder

The list also includes three other groups:

- Those who are pregnant
- Children and adolescents
- Older adults

Neither pregnancy nor adolescence is a disease, and these categorizations are clearly not appropriate.

Pregnancy is a healthy biological function, although it does require some modifications in exercise practice. And although W.C Fields might have considered children a disease, kids are anabolic little beasts who require progression and exposure to broad exercise demands. Being a kid is not a disease.



We can also exclude the first eight items on the list above. After all, the term "diseased population" is already correctly applied, so we need not call them "special" and apply two names to the same thing.

Where aging is concerned, we know chronology is correlated to mortality: The more days you live, the closer your date of death. But that doesn't make aging a disease. The one thing that likely puts older adults into the category of diseased populations is a choice: We drop out of physical activity for the comfort of the couch.

The one thing that likely puts older adults into the category of diseased populations is a choice:

We drop out of physical activity for the comfort of the couch.

This choice is still not a disease, but consider that by the time the 50th birthday rolls around, only about one in six of us is still exercising and active to the minimal levels suggested to maintain health. The data only worsens as we reach our 60th and 70th birthdays.

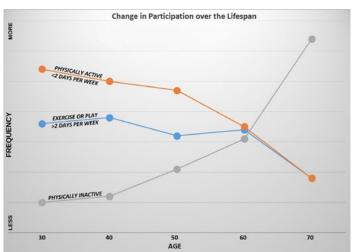


Figure 1: Self-reports of physical activity generally show that activity levels drop over the lifespan. Note the significant drop-off after 50 for those classified as physically active (those who exercise, play sports or do other physical activity at a very low frequency). People who already train or play sport regularly tend to continue doing so until age 60, when participation drops significantly. (Source: Scottish Government)

That choice to become less and less fit over time sets up the opportunity for hypokinetic diseases to gain a foothold and become statistically correlated with old age. Hypokinetic diseases are those that are associated with the lack of habitual physical activity or exercise in one's lifestyle.

If you choose to become inactive with age, you choose to make yourself more vulnerable to disease and to be lumped into the "special" diseased group. But in reality it is the presence of disease that makes such individuals special, not age.

If you actually think about it, older couch potatoes are not special in any sense of the word. Instead, they are becoming a part of the diseased majority, the nearly two-thirds of the population who do not exercise.

If you choose to become inactive with age, you choose to make yourself more vulnerable to disease.

The presence of hypokinetic diseases in older populations is profound. When we look at the diseases on the previous list, the frequency of occurrence in most instances appears to be linked to aging but is more strongly linked to inactivity.

When we look at the incidence of cardiovascular disease by age group, younger adult to older adult, we see a step-wise increase in the diagnosis of the disease (1). We see a very similar situation with the frequency of diagnosed pulmonary disease over the later lifespan. Further, we see an increase in the occurrence of overlapping pulmonary diseases. At age 40, about 20 percent of those with asthma will also have obstructive pulmonary disease. By age 70 that number rises to about 67 percent (2). We see similar frequency increases in metabolic disease (3), immunological disease (4), musculoskeletal disease (5), neuromuscular disease (6,7), cancer (8) and psychological disorders (9).

And this is not new knowledge. As early as 1922, the relationship between physical inactivity and certain types of diseases—those special-population diseases listed above—had been noted (10,11). The term "hypokinetic diseases," coined in 1954, was the subject of a 1961 textbook that described diseases and conditions that had a statistical association with lack of exercise or lack of other physical activity (12). The original 1954 list of hypokinetic diseases included heart disease, obesity, diabetes, arthritis, joint problems, depression, mental disorders, back pain and some cancers.

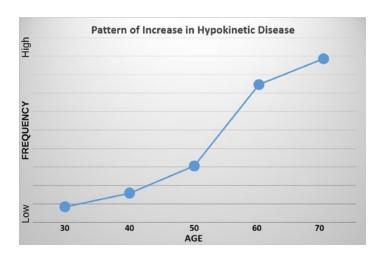


Figure 2: The general pattern of increase in the occurrence rate of hypokinetic diseases. The absolute numbers of those affected by the individual diseases vary, but when the diseases are looked at as a group, a shared pattern of increase in disease occurrence in the last half of the lifespan can be seen. (Graphic represents pooled frequency patterns in references 1-9.)

It's easy to see how confusion creates the idea that aging is a disease process: The elderly seem to be riddled with diseases. The almost geometric increase in the frequency of hypokinetic diseases after 40 paints a rather stark portrait of my later years if I am within the norm.

But I'm not, and no one has to be.

Getting Old, Getting Sick

When we look at how many people are completely sedentary—physically inactive—we see a nearly geometric increase in the number of people over 40 who are absolutely physically inactive. This increase very nearly mirrors the increase in the frequency of hypokinetic diseases. And this is the important part: As physical activity decreases, the frequency of hypokinetic diseases increases (compare Figure 1 and Figure 2).

So we have a question: Is age directly linked to increased frequencies of disease or does simply being a couch potato create a more easily deranged set of cellular, tissue, system and organismic circumstances that allow disease processes to become established?

The tendency in current literature seems to indicate that those with more robust physical-activity and exercise histories—interpreted as higher fitness—have fewer hypokinetic diseases and a lower death rate than those who are physically inactive (13). But we have little data on the occurrence of disease over lifespan when exercise is held constant at levels that induce fitness gain or maintain high levels of fitness. The data we have on exercise frequency and intensity is generally derived from self-report, a



While far too many spend retirement in the rocking chair, the wise use their free time to ensure the golden years are full of vitality.

low-reliability method of determining biological relationships. This means a lot of guesswork is employed when it comes to the absolute effects of exercise on aging.

Over the past century, many government initiatives have attempted to improve the fitness of the U.S. population and populations in other countries, but they have all been abysmal failures if you review current statistics on the outcomes for exercise, physical activity, obesity and hypokinetic diseases. Things have gotten worse, not better. This is generally because all the efforts focus on the lowest amount of physical activity needed to avoid disease rather than addressing the need for fitness to accomplish the desired improvements in function and health.

You—the master of your own destiny—need to do what the government couldn't: Take control of your and your trainees' fitness in order to improve life functions and quality of life and stave off the development of hypokinetic diseases.

We aren't destined for hypokinetic diseases just because we get old.

Given that fitness seems to prevent and in many instances cause a regression in disease processes, it would be very tempting to say that exercise acts as a proxy for medical interventions and then say "exercise is medicine." Lots of other people and organizations do this, but they are simply fooling themselves and the public.

Creating fitness is not the same as prescribing a dose of penicillin. Creating fitness is its own end. It is, as CrossFit Founder and CEO Greg Glassman terms it, "non-medical health care."

We don't need a medical or clinical degree to deliver fitness and its preventive benefits. We only need to be able to create fitness and deliver it effectively and reliably to those who need it most. That is actually everyone who does not exercise currently. But considering the previous discussion, and with reference to Figure 1, we should strongly consider ways to keep people 50 and older coming to the gym, training at home or in some way exercising regularly.

A Head-Start Program for Adults

Some bright spots exist. Although some drop out of regular training as they age, physical function and the occurrence of hypokinetic diseases in later life is affected by the actions of our younger selves. Being fit at younger ages provides an advantage in later life by establishing a base resistance to disease processes. If we are fit in adulthood, experimental data suggests we are less likely to become diabetic as we age (14). This effect can become even more powerful if combined with appropriate nutritional habits.

Other research is suggestive that fitness gained in adulthood can delay the onset of age-related increases in blood pressure by about a decade (15). Hypertension is one of the important risk factors associated with developing cardiovascular disease, and

it affects a large segment of society. Delaying or eliminating the onset of hypertension is valuable, and spending time in the gym training during younger adulthood seems to be an easy way to do this.

It's never too late for anyone, regardless of exercise history, to start a journey toward fitness.

If being previously fit delays the onset of later-life hypokinetic disease, gym time in the younger years is a boon for everyone. If pre-conditioning extends the lifespan by a decade, then we can potentially cut the number of 50- and 60-year-olds who are experiencing the onset of hypokinetic diseases significantly, an effect that might decrease the severity of disease in the over-70s.

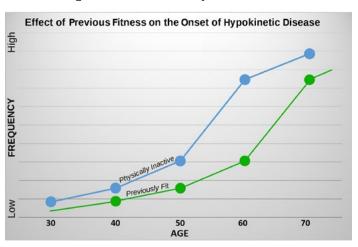


Figure 3: The blue line represents the increase in hypokinetic disease rate seen if the individual is historically sedentary. The green line represents the increase in hypokinetic disease rate in individuals who have a previous training history in adulthood but do not currently train. Note that a residual effect of previous fitness might delay disease onset by up to a decade. (Graphic represents pooled frequency patterns in references 1-9,14,15.)

We can't truly think that all the fitness gained early in life will persist across decades. It doesn't. We have all experienced de-training first hand. When we get fit and then stop training, we get unfit. We might experience some residual biological effects, but the majority of things that make us better and more functional can be lost in days, weeks, months and years (16,17,18,19). The obvious point is that if you want to ensure you have the best chance to avoid hypokinetic diseases and maintain quality of life, you should not get fit then stop training. We actually need to continue training when we are older.

A less obvious point is that it's never too late for anyone, regardless of exercise history, to start a journey toward fitness.

Playing Catch-Up

It is never too late to get up off the couch and start training to improve strength, endurance and mobility. Although each of these elements of fitness is exquisitely developed by CrossFit training, any system of exercise can be used as long as it is progressive and improves fitness in some aspect.

Being stronger is associated with longevity (20). Higher endurance is associated with longevity (21). Mobility is associated with longevity (22). Although the available research cannot prove causality here, the weight of the correlations provides us with a good sense of direction in how we should approach exercise and aging.

Get your aging self to the gym with grandpa and grandma and mom and dad—that's the approach.

When an older adult starts training, the results can be spectacular. Strength levels can increase by 23 percent in as little as 12 weeks even in those up to 92 years of age (23). Endurance levels can increase by 16 percent in as little as four months (24). Mobility can improve, too, with a significant 62 percent reduction in falls seen after a year of training (25). And when we bundle those outcomes together, we find that not only are physical function and quality of life improved, but creating fitness in older adults also cuts the risk of disease and death significantly.

Simply put, the concept that older trainees cannot adapt to training has no merit. Similarly flawed are recommendations that older trainees aspire to only the lowest levels of physical activity—the bare minimums. If higher fitness is related to lower disease and death rates, then we should use methods that create those levels of fitness.

A Different Kind of Special

If you don't want to be part of a "special population," don't sit on your butt. Get to the gym.

I refuse to be that kind of special. And I want the exercise industry to stop using that term to describe older adults just because of an erroneously assumed relationship between aging and disease. We need to stop the automatic treatment of the aging as feeble and infirm, and we need to end to the widespread creation of physical-activity programs that do nothing to delay or stop fitness decay.

I do, however, want to be a different kind of special. I want to be the kind of special that's earned in the gym, the kind of special that allows you to be capable of the things often considered the province of the young. Maintaining a high level of function sets

you apart from the average non-exercising older adult, and it will help keep you disease-free and allow you to enjoy a long life.

References

- 1. ISD Scotland. Health Conditions: General Practice. Available at http://www.isdscotland.org/Health-Topics/General-Practice/GP-consultations/Health-Conditions/CHD/. Accessed Sept. 21, 2016.
- 2. Rhee CK. Phenotype of asthma-chronic obstructive pulmonary disease overlap syndrome. The Korean Journal of Internal Medicine, 30(4): 443-449, 2015.
- 3. Toto RD, Sowers JR, Jamerson KS. A debate on the metabolic syndrome: Evolving challenges and controversies. Medscape Multispeciality CME. CE 511929, 2005.
- 4. Broadley SA, Deans J, Sawcer SJ, Clayton D, Compston DAS. Autoimmune disease in first-degree relatives of patients with multiple sclerosis. A UK survey. Brain, 123: 1102-1111, 2000.
- 5. The United States Bone and Joint Initiative. The Burden of Musculoskeletal Diseases in the United States: Prevalence, Societal and Economic Cost (3rd Edition). Rosemont, III.: 2014.
- 6. Dewey RB. Overview of Parkinson's Disease. Available at http://parkinsonsed.com/pd-dialogues/parkinsons-disease-overview. Accessed Sept. 21, 2016.
- 7. Us Against Alzheimer's. The Crisis. Available at http://www.usagainstalzheimers.org/crisis. Accessed Sept. 21, 2016.
- 8. Buck Institute. Aging and Cancer: An Unexpected Pair. Available at http://sage.buckinstitute.org/aging-and-cancer/. Accessed Sept. 21, 2016.
- 9. National Institute of Mental Health. Serious mental illness (SMI) among U.S. adults. Available at: http://www.nimh.nih.gov/health/statistics/prevalence/serious-mental-illness-smi-among-us-adults.shtml. Accessed Sept. 21, 2016.
- 10. Allison N and Brooks B. Bone atrophy: A clinical study of the changes in bone which result from nonuse. Archives of Surgery 5: 499, 1922.
- 11. Dock W. The evil sequelae of complete bed rest. Journal of the American Medical Association 125(16): 1083-1085, 1944.
- 12. Kraus H and Raab W. Hypokinetic Disease: Diseases Produced by Lack of Exercise. Springfield, Ill.: Thomas, 1961.
- 13. Swift DL, Lavie CJ, Johannsen NM, Arena R, Earnest CP, O'Keefe JH, Milani RV, Blair SN, Church TS. Physical activity, cardiorespiratory fitness, and exercise training in primary and secondary coronary prevention. Circulation Journal 77(2): 281-292, 2013.

- 14. Chow LS, Odegaard AO, Bosch TA, Bantle AE, Wang Q, Hughes J, Carnethon M, Ingram KH, Durant N, Lewis CE, Ryder J, Shay CM, Kelly AS, Schreiner PJ. Twenty year fitness trends in young adults and incidence of prediabetes and diabetes: The CARDIA study. Diabetologia 59(8): 1659-1665, 2016.
- 15. Liu J, Sui X, Lavie CJ, Zhou H, Park YM, Cai B, Liu J, Blair SN. Effects of cardiorespiratory fitness on blood pressure trajectory with aging in a cohort of healthy men. Journal of the American College of Cardiology 64(12): 1245-1253, 2014.
- 16. Liao YH, Sung YC, Chou CC, Chen CY. Eight-week training cessation suppresses physiological stress but rapidly impairs health metabolic profiles and aerobic capacity in elite taekwondo athletes. PLoS One 11(7): e160167, 2016.
- 17. Waring CD, Henning BJ, Smith AJ, Nadal-Ginard B, Torella D, Ellison GM. Cardiac adaptations from 4 weeks of intensity-controlled vigorous exercise are lost after a similar period of detraining. Physiological Reports 3(2). pii: e12302, 2015.
- 18. Zech A, Drey M, Freiberger E, Hentschke C, Bauer JM, Sieber CC, Pfeifer K. Residual effects of muscle strength and muscle power training and detraining on physical function in community-dwelling prefrail older adults: A randomized controlled trial. BMC Geriatriatrics 12: 68, 2012.
- 19. Heinonen A, Mäntynen J, Kannus P, Uusi-Rasi K, Nikander R, Kontulainen S, Sievänen H. Effects of high-impact training and detraining on femoral neck structure in premenopausal women: A hip structural analysis of an 18-month randomized controlled exercise intervention with 3.5-year follow-up. Physiotherapy Canada 64(1): 98-105, 2012.
- 20. Ruiz JR, Sui X, Lobelo F, Morrow JR Jr, Jackson AW, Sjöström M, Blair SN. Association between muscular strength and mortality in men: Prospective cohort study. British Medical Journal 337: a439. 2008.
- 21. Lee DC, Sui X, Artero EG, Lee IM, Church TS, McAuley PA, Stanford FC, Kohl HW, Blair SN. Long-term effects of changes in cardiorespiratory fitness and body mass index on all-cause and cardiovascular disease mortality in men: The Aerobics Center Longitudinal Study. Circulation 124(23): 2483-90, 2011.
- 22. Rubenstein LZ, Josephson KR. The epidemiology of falls and syncope. Clinics in Geriatric Medicine 18: 141–158, 2002.
- 23. Yarasheski KE, Pak-Loduca J, Hasten DL, Obert KA, Brown MB, Sinacore DR. Resistance exercise training increases mixed muscle protein synthesis rate in frail women and men >/=76 yr old. American Journal of Physiology 277 (1 Pt 1): E118-125, 1999.
- 24. Tsuji I, Tamagawa A, Nagatomi R, Irie N, Ohkubo T, Saito M, Fujita K, Ogawa K, Sauvaget C, Anzai Y, Hozawa A, Watanabe Y, Sato A, Ohmori H, Hisamichi S. Randomized controlled trial

- of exercise training for older people (Sendai Silver Center Trial; SSCT): Study design and primary outcome. Journal of Epidemiology 10(1): 55-64, 2000.
- 25. Karinkanta S, Kannus P, Uusi-Rasi K, Heinonen A, Sievänen H. Combined resistance and balance-jumping exercise reduces older women's injurious falls and fractures: 5-year follow-up study. Age and Ageing 44(5): 784-789, 2015.

About the Author: Lon Kilgore earned a Ph.D. from the Department of Anatomy and Physiology at Kansas State University's College of Veterinary Medicine. He has competed in weightlifting to the national level since 1972 and coached his first athletes from a garage gym to national-championship event medals in 1974. He has also competed in powerlifting, the first CrossFit Total event, wrestling and rowing. He has worked in the trenches, as a qualified national-level coach or scientific consultant, with athletes from rank novices to the Olympic elite, as a small business owner, and as a consultant to fitness businesses. He was co-developer of the Basic Barbell Training and Exercise Science specialty seminars for CrossFit (mid-2000s) and was an all-level certifying instructor for USA Weightlifting for more than a decade. He is a decorated military veteran (sergeant, U.S. Army). His illustration, authorship and co-authorship efforts include several best-selling books and works in numerous research journals. After a 20-year professorial career in higher academia, he currently delivers vocational-education courses (some for free) through the Kilgore Academy, provides online commentary and analysis of exercise-science papers, and works as a writer and illustrator.





Like all high-level CrossFit athletes, Jamie Hagiya has an impressive physique. The epitome of health and fitness, she's the perfect poster girl to attract new clients into the gym, right?

Not so fast, said 31-year-old Hagiya, who finished 18th at the 2016 Reebok CrossFit Games. The owner of Torrance CrossFit in California said she goes out of her way to avoid using her fitness resume as a sales pitch.

"That's not what will get new people into the gym," she said.

According to Dan Uyemura, Hagiya's business partner, her humble approach works and she has a gift for bringing in new clients.

"People approach her in the world all the time," Uyemura said. And when they do, Hagiya is the coach who can walk into a coffee shop and leave with five clients, he added.

"That actually just happened the other day," Hagiya said. "I went to the dermatologist and the woman at the front desk asked me where I work out. She said she had been wanting to try CrossFit for a while."

After the receptionist expressed interest, Hagiya turned the tables and immediately started asking the woman questions.

"When I meet someone who's interested in coming into the gym, I actually don't talk about myself at all," Hagiya said. "Sales is more about listening than anything. Asking questions and genuinely listening to their answers, that's how you build trust."

After Hagiya built rapport with the receptionist at her doctor's office, the two exchanged phone numbers, and the following week the woman showed up at Torrance CrossFit for an introductory session with six of her friends. Hagiya earned herself seven new clients that day.

Beyond the Workout

Hagiya said she thinks CrossFit coaches make a mistake by talking too much about the physical side of CrossFit when trying to convert prospects into clients.

It's hard to refrain from focusing on the fitness gains clients will achieve because we know how powerful CrossFit workouts are, Hagiya said, but she started having more success the moment she shifted her focus to why the client really wants to get fit. She credits the change in approach to a sales course she took while in Cancun, Mexico, when she was working for Battlefrog, an obstacle-course-race company.

"It changed the way I talked to people about coming into the gym. I used to be like, 'This is what CrossFit is. These are the gymnastics movements we'll teach you. This is when the classes are. These are the classes we offer.' And I would go on and on about it," Hagiya said.

Video: Greg Glassman on Explaining CrossFit to Clients



Win friends, influence people with a smile.

Joe Vaughn, the owner of CrossFit MouseTrap in Orlando, Florida, takes a similar approach. The technical cues aren't going to sell a new client, he said.

"When someone comes in and they're brand new, many coaches try to over-coach them to impress them with their knowledge. But that doesn't provide a good experience. When people walk through the door, they're not going to remember the cue you gave them. They'll remember the way you made them feel."

Vaughn said his single biggest focus is making the client feel good.

"Sometimes I do things like count the number of times a person smiles (during the first experience)," he said. "Because the best way to make a sale is to give someone a good experience."

To give prospective clients a good experience, Hagiya said it's important to dig deep to get people to open up "so you understand where they're coming from."

She added: "If they say they want to lose weight, I'll ask a question like, 'Why do you want to lose 10 lb.?' I think if you get to the





root of their problems, to their internal reasoning for getting into the gym, you're more likely to (get them to join). And if you're really genuine, they'll be able to tell that you care and then they usually open up a bit more."

"I explain how fitness has been my gateway to personal development and to acceptance of who I am."

— Fernando Alcantara

Fernando Alcantara, a coach at CrossFit Long Beach in California, is another trainer who has found success getting personal with prospects.

"If someone shows interest in the gym, I will mention that I help people like the person I'm talking to. I will try to find out who the person is and what kind of problems or challenges (he or she has), and I will tailor what I do specifically to that person," Alcantara said. "I get them talking about themselves. I try to find out some 'pain points' from that person."

By "pain points," Alcantara said he means the person's true reasons for wanting help. People might say they want to lose weight or get fit, but that doesn't give you their reasons for setting these goals.

"The why is the important part."

Getting to the root of the problem is not always as easy as it sounds, he said.

"Sometimes it takes a while to get someone to open up and be vulnerable and truly let you in on why they want to be there. Sometimes it's really personal. Or they're embarrassed."

Alcantara recently encountered a situation like this with a female prospect who made contact through his website. The two talked on the phone and she seemed standoffish, he explained.

"So I said, 'What if we met in person and talked and got to know each other?" Alcantara said. "She came in and we sat down together without any distractions, without anyone else listening in, and she started to trust me."

She soon opened up about her pain.

"She was a slender girl, but she didn't like how she looked. She hated knowing she could look better but does nothing about it. Her pain was that she knew she could do it but didn't ever do anything about it. She was embarrassed by this."



Fernando Alcantara

After their conversation, the young woman signed up to train at CrossFit Long Beach.

Alcantara admitted some people are more difficult than others. When he senses a roadblock from a prospect, he isn't afraid to share a story of his own to try to "break the ice." he said.

"I'm 5'6" and I used to weigh 240 lb. I actually stopped weighing myself at 240 lb. Now I'm 165 lb. I used to completely hate myself when I was overweight.

"So I tell them this and about my journey, how I was in a place where I was never happy with myself and always wanted to be someone else, and I explain how fitness has been my gateway to personal development and to acceptance of who I am," he said.

He added: "Often people come in and see fitness coaches as people who don't struggle at all with fitness or nutrition. They think we're somehow above that, so when I tell a story that paints me in a vulnerable way, it makes them know I'm human. When people aren't being open and forthcoming, usually they just need someone to relate to."

If a prospect still doesn't open up after Alcantara shares his story, he said it's time to ask the tough questions. He credits his experience working as a journalist at the Garden Grove Journal with helping him feel comfortable asking questions that might make the prospect momentarily uncomfortable. Alcantara spent two years interviewing politicians, so he's prepared to ask the questions he knows are necessary to connect with the prospective client.

"I put on the journalist hat and say to myself, 'If I'm going to lose them anyway, I might as well try.' If I lose them because I asked the hard questions, that's OK. If I fail, at least I know I asked," he said.

Never Mind the Money

Although both Hagiya and Alcantara agree the focus of working with prospective clients should be on discovering their wants and needs, at some point the prospect has to make the decision whether or not to pull out the wallet.

"It's tough because we are trying to help people, but nothing comes for free and we also don't want to waste our time as coaches," Hagiya said.

She said she thinks many coaches make a mistake by assuming the prospect is going to think joining the gym is too costly.

"One thing I have learned is never assume something is too expensive for people. You don't know their financial situation, and they might even be offended if you assume they can't afford it," Hagiya said.

Hagiya's gym doesn't list prices on its website because the hope is to show the client value before the talk about cost of training.

"We tried different things and found we have more success when we reveal the cost after we show the client the value of what we do," she said. "The people you really want there will find a way to pay for it. I've had people come in who said they saved up for three months so they could join. The people who choose to spend money on their fitness see the value and find a way."

Hagiya has also discovered she isn't a good fit with those who don't see the value in the training.

"The people who want a deal or a discount are always the first ones to quit. And if they do want a deal, I'll be honest and say, 'My buddy owns a gym down the street. It's a bit cheaper if price is your Number 1 concern here."

Vaughn takes a different approach.

"We go (for) transparency. We have our prices listed on our website. That pre-screens people, and if they can't afford it, we don't want to waste our time," Vaughn said.

For Alcantara, the key has been realizing he doesn't need to sell everyone who comes through the door for an introductory session.

"Yes, you want to pick up a new client, but it's as important for you to find people you want to work with, too," he said. "I'm not afraid to have someone not be right for me. I'd rather find out early on if we're not a right fit."

The latter is something Alcantara learned from a 2015 sales-training course hosted by long-time sales coach Greg Mack, a man who has more than 25 years of experience working with gym owners to increase their sales.

Mack's—and now Alcantara's—approach to picking up new clients is natural selection. It's not about bombarding people and





For Alcantara (left) and Albritton (coral shorts, right), it's critical that prospective clients trust them and their brand.

shoving a flyer in their face as they enter the grocery store, Mack explained. It's about finding the right people who are happy to pay for your service, he added.

In this way, selling a product or service doesn't have to feel devious, Mack said.

"Your focus as a coach should be on finding out if you can meet (the prospect's) needs. And if you can't, then you shouldn't take their money."

Building Trust

William Albritton is the owner of CrossFit Alexandria in Louisiana.

Like Hagiya and Alcantara, Albritton focuses on developing trust with a prospective client. For him, this starts online.

Albritton said he's been doing what CrossFit Inc. did in its early days to build the brand: Post useful information and videos online.

"This helps people get to know and trust your brand because you're giving them value," Albritton said.

The key for him has been finding a way to reach the right market: regular people who are looking to get fit, he said.

"We put out videos with training and nutrition tips that ordinary people can relate to—things like how to gain muscle or how to lose weight," he said. "The general public doesn't know anything about Olympic weightlifting, but they might be interested in weight loss, so we focus on areas that will resonate with them.

It's about using the language they're speaking. A lot of CrossFit gyms want to look cool and showcase their competitors, so they put up videos of heavy clean and jerks and snatches, and this can scare some people away."

Albritton has had success with direct advertising that targets specific groups of people; for example, friends of people who already like the CrossFit Alexandria Facebook page.

"It acts as a screening process because these people's friends already trust us," Albritton said.

"More and more often these days,
people who sign up tell me they have
already watched our videos and were
learning the movements on their
own before they came in."
—William Albritton

His main goal is to build CrossFit Alexandria into a familiar brand in his local market, he said.

So far, it's working. Albritton said he regularly meets people

around the city who see his CrossFit Alexandria T-shirt and tell him they've seen his videos.

"Or they'll tell me they've been eating better since seeing our nutrition tip video. More and more often these days, people who sign up tell me they have already watched our videos and were learning the movements on their own before they came in," he said.

This free content adds immediate value that a general ad cannot.

"Warming up leads before they come in is key. ... A lot of gym owners look for a quick solution and a quick conversion. So they do something like run a Facebook ad saying, 'Come sign up,' but that's all they do. They never warm their audience up with value first," he explained.

Warming leads goes back to the CrossFit ideal of excellence. By showcasing themselves and their business, trainers attract clients who are impressed with their knowledge, competence and professionalism. A prospective client who is already impressed before speaking to a coach is much more likely to want to work with that coach, and if the trainer earns the visitor's trust when they first meet or speak, the relationship is likely going to be successful

"We might also run an ad to bring new people in, but we've also had 10 other videos that they've already seen, so there's already a familiarity there. It makes converting them (into clients) a lot easier."

Natural Selection

Though their approaches differ slightly, Albritton, Alcantara, Hagiya and Vaughn all agree that being pushy and aggressive isn't the way to a new client's heart.

"I'm not trying to trick people into doing something they don't want. Sometimes I just talk to people for a while first before I even mention I own a gym down the street," Hagiya said. "It needs to come from them."

Albritton takes the same approach: "Let it happen naturally. We work really hard on putting up our free, valuable content, and since we're doing that we don't ever have to worry about being pushy or 'salesy."

For Vaughn, sometimes it happens naturally when he least expects it, such as one time he was out drinking at a bar and started chatting to the guy next to him at 1 a.m.

"We talked for a while and he said he was going to come to the 9-a.m. class the next day, and I was like, 'There's no way you're coming.' But we had built a good rapport between us, and sure enough, he came in the next morning, did the class and signed up for a membership."



As with Vaughn's 1-a.m. drinking buddy and unlikely new client, Alcantara has discovered when you let people come to you, they end up becoming great clients who stick around.

"They're the ones who trust me as a coach. They know I want the best for them and I'm not just trying to sell them things they don't need."

About the Author: Emily Beers is a CrossFit Journal contributor and coach at CrossFit Vancouver. She finished 37th at the 2014 Reebok CrossFit Games.





The legless man in the wheelchair made a very strong point without saying anything.

On the way to the gym for a workout, I was bemoaning my situation and wishing I didn't have to do a 5-kilometer run. My inner monologue alternated between bitching about my tight left hip and outlining the reasons I prefer power to endurance.

You know the drill. I longed for workouts involving movements in my wheelhouse, I pre-made excuses for a poor performance, and I thought about skipping the run in hopes of snatches the next day.

Then the guy in the wheelchair rolled by with a bunch of empty grocery bags as I was stopped at a light. No markets can be found in the area, so he was clearly buckling down for a long haul to his destination.

No bitching. Just getting it done.

After feeling like an asshole for a moment, I drove the final block to the gym with a much clearer head.

Of course the workout turned out to be exactly what I needed. What I suspected would be a lengthy period of suffering was actually a 5-kilometer cruise on a sunny day while surrounded—and lapped—by friends. I did my best, owned my time and got fitter. And I felt grateful that I was able to run.

As I soaked a sweat angel into the asphalt, I found it interesting that a man in a wheelchair had helped me lose my crutches.

In CrossFit—or life, for that matter—crutches are those things you use to make excuses for poor performance, absence, lack of effort, a bad attitude and so on. Crutches are your outs when your goats appear, when your rival beats your ass, when you just don't want to try very hard but still want a good score.

Sometimes it's a sore body part. Other times it's stress from the kids or the pets. Or a bad sleep. Or a lack of rest days. Or age. Or the autumnal equinox. Or what the hell ever.

Don't let whatever ails you derail you.

Crutches, in general, are whatever you lean on when you should just write your time on the board and high-five your classmates.





Adaptive athletes are proof that limitations are self-imposed only.





Crutch: "I could have gone harder but it's my fourth day in a row."

Crutch: "I won't PR because I was up all night."

Crutch: "I crashed in the third round because I haven't eaten all day."

Even legitimate injuries and conditions can be crutches, though truly inspriring adaptive athletes have proven that absolutely anything is possible when you refuse to give up.

I'm not suggesting you should ignore stabbing pain due to a torn knee ligament to do a squat workout.

But I am suggesting you should quit complaining and hit the bench press like you're training with Ronnie Coleman. Remember that someone has a worse deal and a bigger smile than you do. Move some weight and celebrate with your best "Yeah, buddy!"

Someone has a worse deal and a bigger smile than you do.

More than that, I'm suggesting you should get rid of all your crutches completely. Don't let whatever ails you derail you. Simply modify the workout as needed, then put your nose to the stone. Cancel the pity party and be happy. Think only about what you can do, push as hard as you can, and earn a score you can be proud of.

Here's a secret: No one is 100 percent.

We all have stress, soreness, bills, jobs, family commitments, flat tires, plugged drains and a pile of dirty laundry on the bedroom floor. That's life. You can choose to use all that shit to justify a lack of effort or you can do up your chinstrap and give everything you have that day. I'd suggest the latter, and I bet taking that honorable approach will significantly improve your mood and your outlook on the next workout.

If you're moping for any reason, lose your crutches by clicking here or entering "adaptive CrossFit athlete" in a browser.

Then head to the gym with a smile and a renewed sense of determination.

About the Author: Mike Warkentin is the managing editor of the CrossFit Journal and the founder of CrossFit 204.

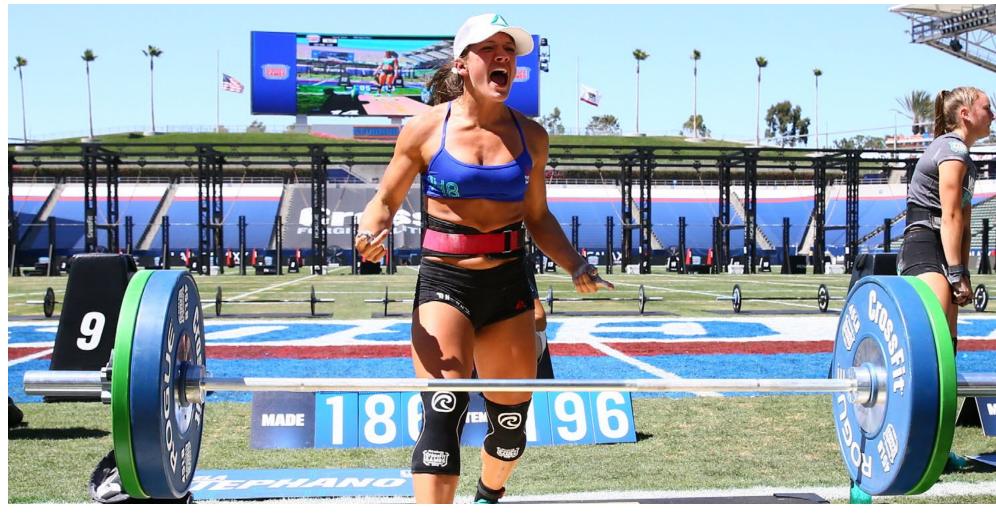
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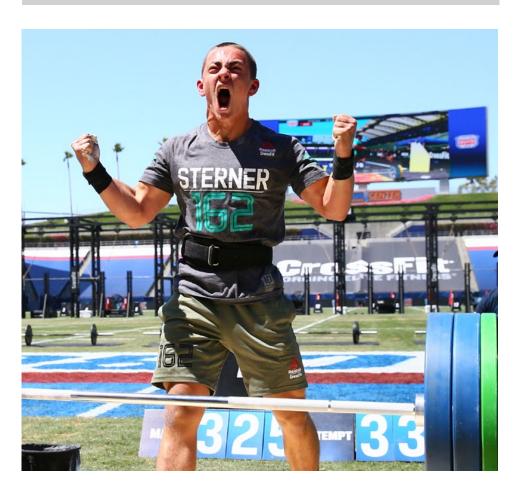
FOR THE AGES

"Age is an issue of mind over matter."

If you don't mind, it doesn't matter."

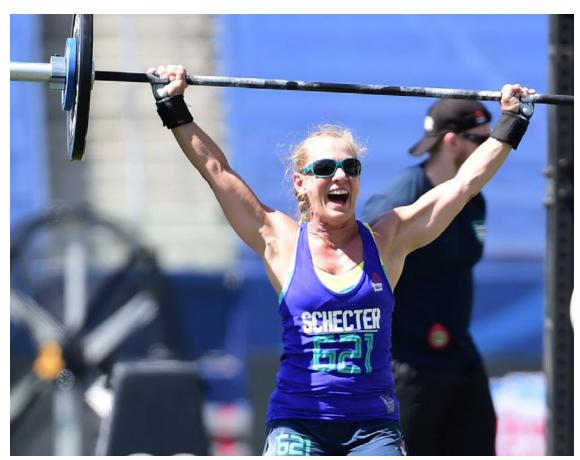
—Mark Twain





or the last two years, masters and teens have performed the same workouts at the CrossFit Games, and the schedule puts the two groups in close contact throughout the competition. Our photographers were able to watch competitors from 14 to 64 perform the same movements back to back, and their images are a testament to the power of functional movement.

CrossFit allows its youngest athletes to set themselves up for a lifetime of fitness, and it allows its oldest athletes to maintain function and even high performance into their later years. While CrossFit is tied to data, these images make it clear that fitness is also a lifestyle and an attitude, not just a number.

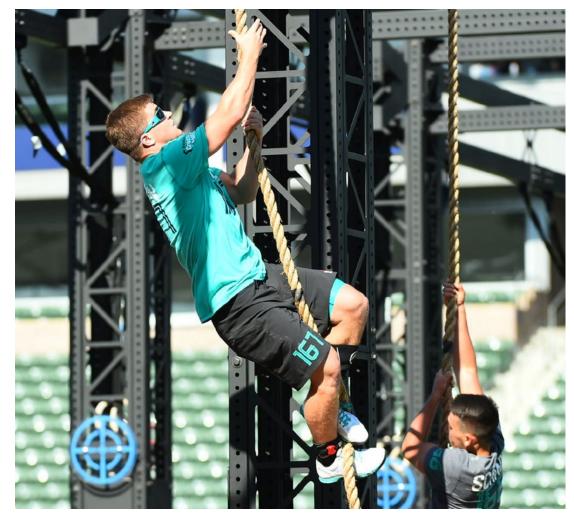








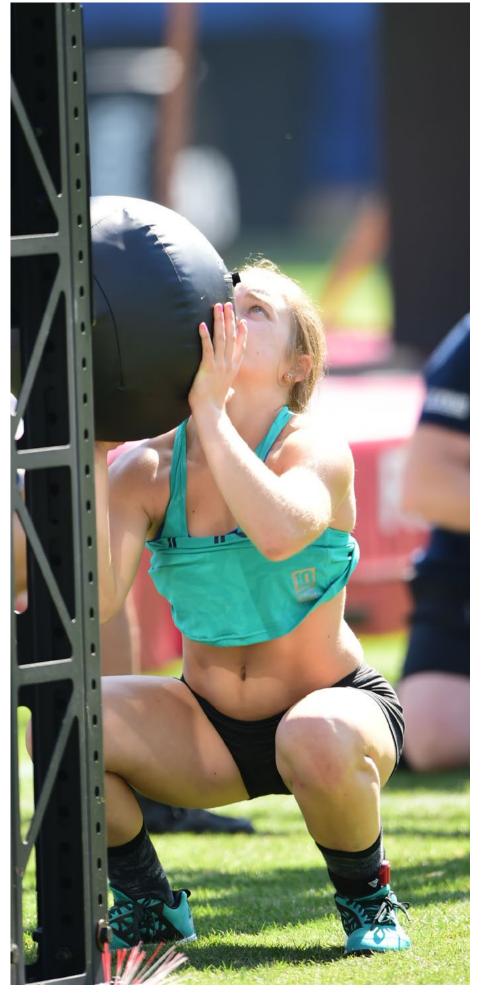


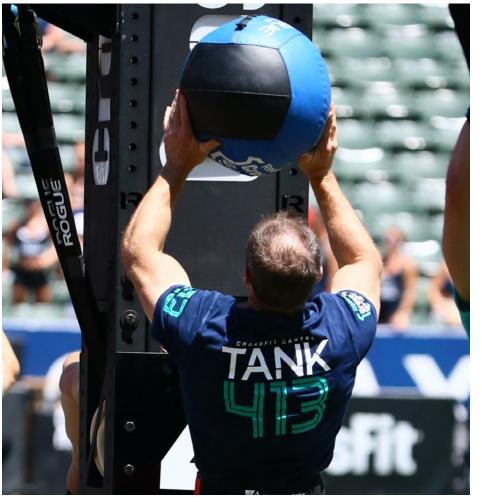




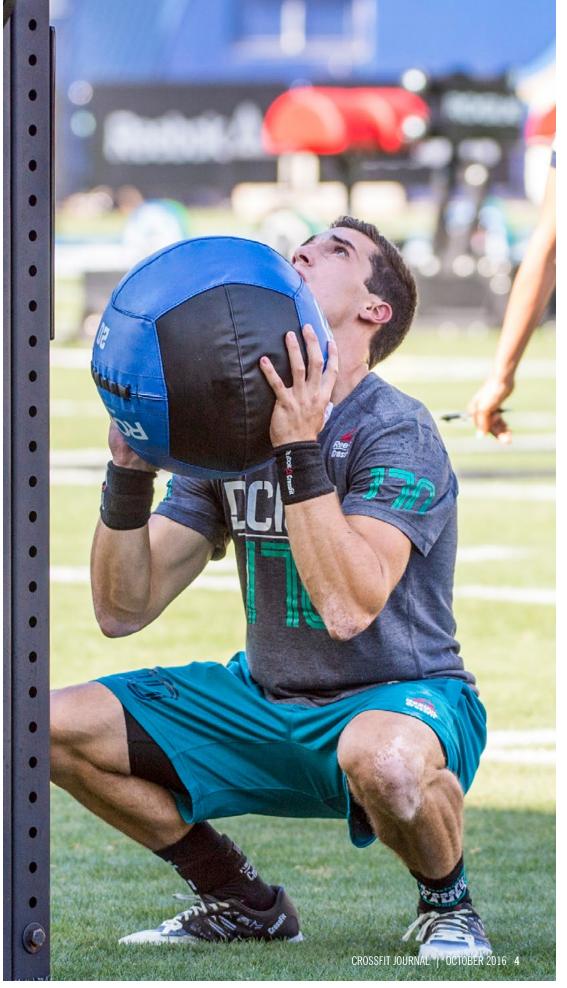


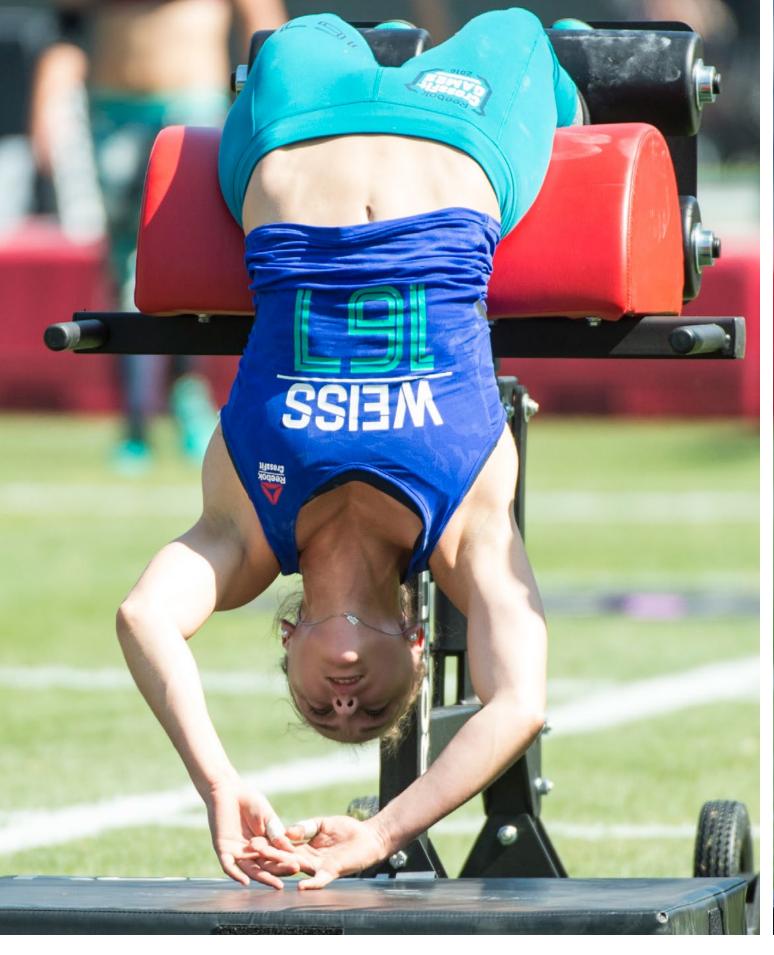




















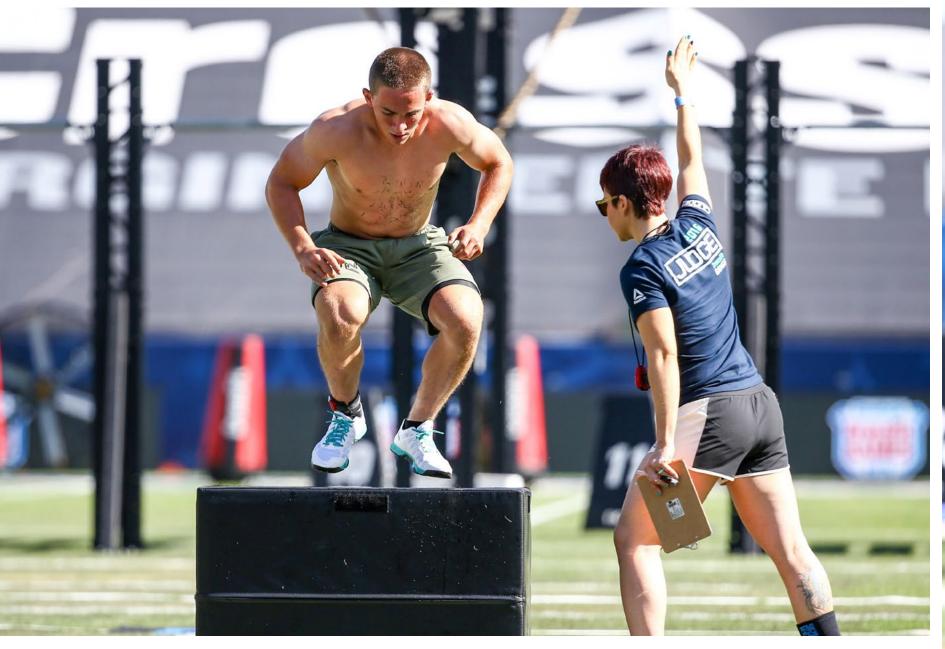
























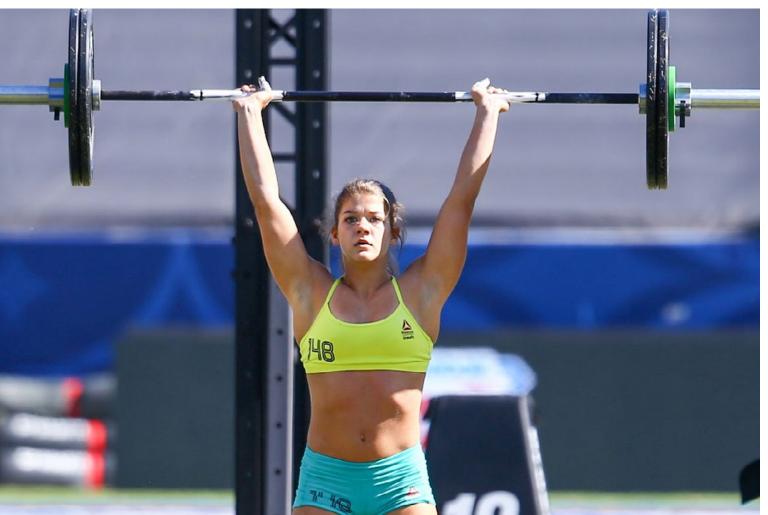






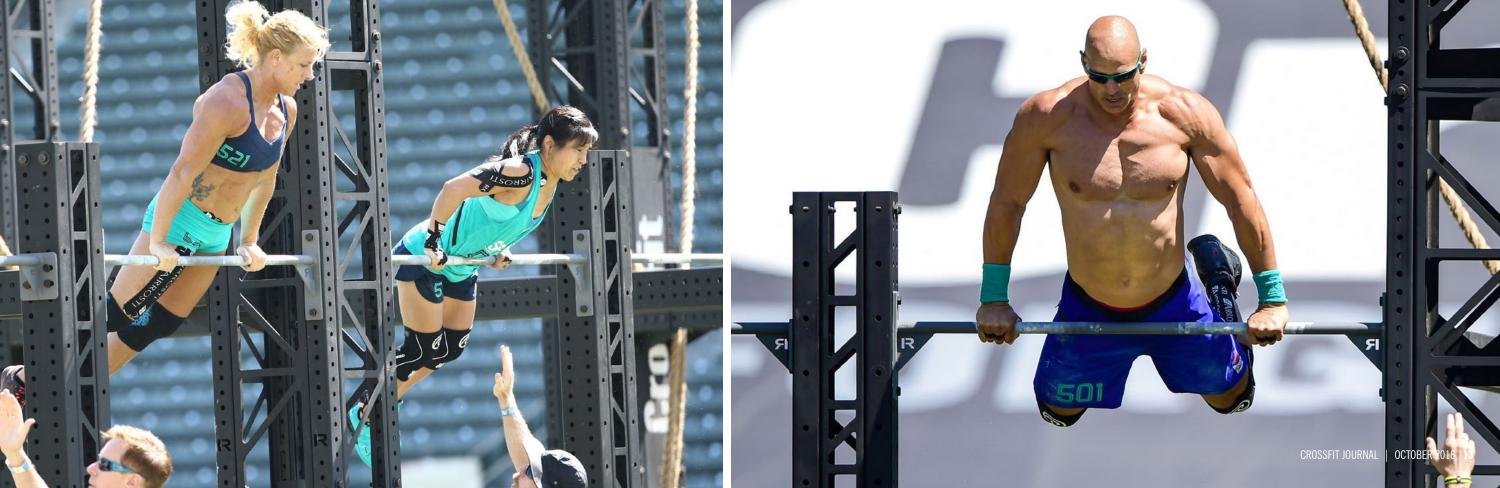










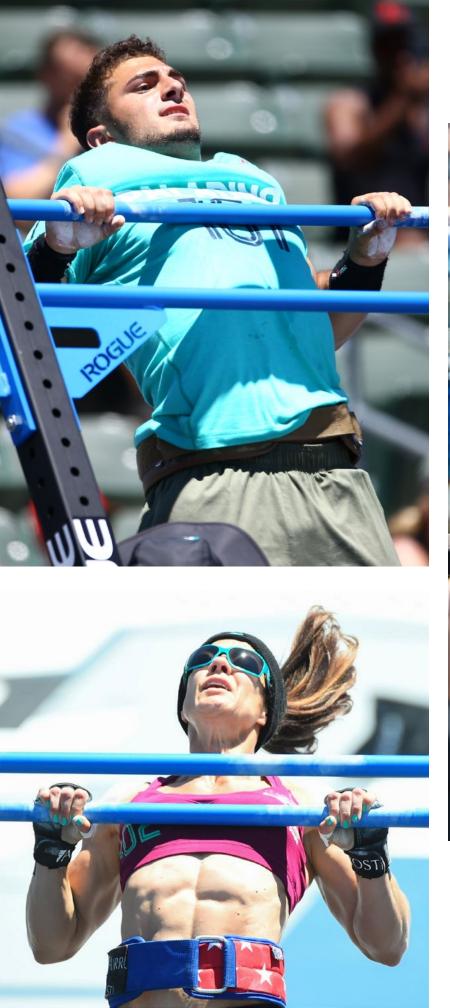


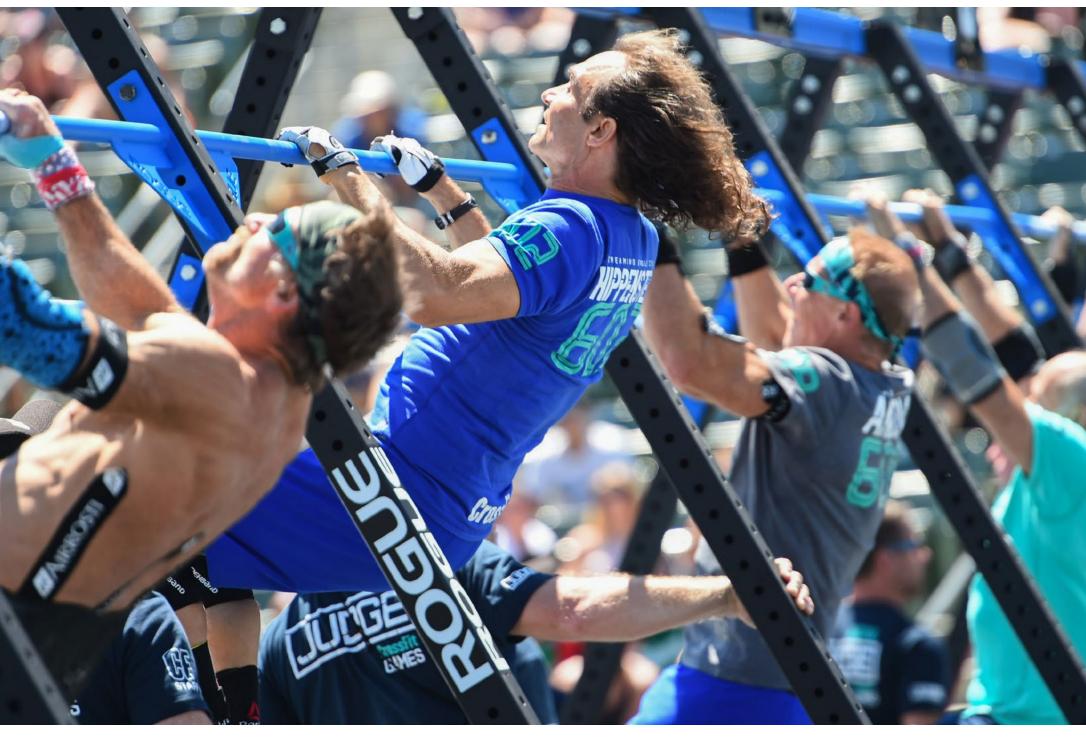






























COVER PAGE: Alicia Anthony, Shaun Cleary

PAGE 2: Ruby Wolff, Shaun Cleary

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PAGE 4: Alicia Anthony, Ruby Wolff, Scott Wallace

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PAGE 17: Dave Re, Michael Brian

CREDITS PAGE: Shaun Cleary



CrossFitJOURNAL

WEIGHTLIFTING'S REASSURANCE

Weightlifting representatives: CrossFit's popularity behind growth and understanding of Olympic sport.

BY ANDRÉA MARIA CECIL



Of the 14 women who train as full-time weightlifters at Waxman's Gym outside Los Angeles, 10 of them began as CrossFit athletes.

"That tells you everything you need to know as far as CrossFit and weightlifting," said Sean Waxman, owner and head coach of the California facility.

His gym reflects CrossFit's effects on Olympic weightlifting as a whole. The training methodology's popularity has helped drive growth and dispel misconceptions in the 125-year-old sport, said weightlifting representatives in Australia, Canada and the U.S.

"It's a very symbiotic relationship, even at this stage where there's no mixing of the organizations," Waxman explained.

He continued: "It's breathed life into my business, so I'm very happy for it and grateful for everything."

More Athletes, More Talent

Over the course of four years, USA Weightlifting's growth has been exponential.

Its Youth group, ages 13 to 17, now comprises 2,322 athletes—an increase of 140 percent from September 2012 to September 2016, according to USA Weightlifting (USAW). The Juniors group, ages 15 to 20, has grown to 1,183 athletes—an increase of 104 percent. But the largest gain has been among Masters, those 35 and older. That age group ballooned from 1,187 athletes to 3,344—nearly 182 percent.

"That's where we've seen it—in the number of weightlifters," said USAW CEO and General Secretary Phil Andrews. "We've seen a lot of impact from the world of CrossFit, and I think it's been a part of—a big part of—the resurgence of the sport of weightlifting."

Andrews, who had been serving as interim CEO since January, became the organization's CEO in April. He had previously served as USAW's director of events and programs for nearly three years.

"CrossFit as a whole has been welcoming to the weightlifting community," Andrews said. "We are two different sports, but there's a large enough crossover that it has affected us, and we're delighted. The more athletes, the better. And the more coaches, the better."

But, Andrews noted, it's not just the sheer number of lifters—it's also the talent pool that CrossFit has fostered.

He named several competitive weightlifters with CrossFit backgrounds: Maddy Myers and Morghan King. Myers competed as an individual in the 2015 Reebok CrossFit Games and has since set American junior records. In August, King broke a 16-year-old American record in the snatch as a 48-kg lifter at this year's

Olympic Games in Rio de Janeiro, Brazil.

"We want more talent. We need more talent," Andrews said excitedly. "We won a medal in Rio. We want more. ... We need to have people pick up a barbell, and a lot of people are doing that through CrossFit."

Myers and King are among multiple elite-level female athletes who have competed in CrossFit as well as national-level weight-lifting competitions in the U.S. Others include 2013 Reebok CrossFit Games champion Sam Briggs, Cassidy Duffield and multi-year Games competitor Lauren Fisher.

"We need to have people pick up a barbell, and a lot of people are doing that through CrossFit." — Phil Andrews

CrossFit, Andrews said, has made it "a social norm for a female to pick up a barbell. And I think that's huge for us."

In Australia, too, participation in weightlifting has increased.

"We're seeing steady growth year on year the past five or six years," said Bowen Stuart, communications manager at the Australian Weightlifting Federation (AWF).

The country always has had "pretty good" participation across both genders, he noted.

"The other thing, too, is CrossFit has broken down some of the misconceptions about weightlifting and weightlifting exercises," Stuart said. "I suppose it's the thing when little Johnny wants to go do weightlifting and mom and dad say, 'Yeah, I'm part of the CrossFit community ... it's not going to have a negative effect on my child."

The more lifters, the better, he added.

"Just the fact that people are getting involved in sport is the real winner," Stuart said.

Over the course of roughly four years, Damon Kelly has seen people's interest in the snatch and clean and jerk grow. Kelly is owner of Zenith Weightlifting in Queensland, Australia, and a two-time Olympian in weightlifting (2008 and 2012).

"It's good to have a lot more people appreciate it, a lot more information out there."

Exposure and Understanding

Like Waxman, Kelly has found more opportunities as a weight-lifting coach since CrossFit's emergence. He coaches 10-12





hours per week at CrossFit Torian, home to the Brisbane Barbell Club.

CrossFit and weightlifting, he said, can complement each other. "It doesn't have to be one or the other. You can do both."

In British Columbia, Canada, 70 percent of competitive weight-lifters also train CrossFit, said Rachel Siemens, owner of Siemens Weightlifting and the 2016 Canadian national champion in the 69-kg weight class.

In 2011 and 2012, she was a member of CrossFit Taranis' team that competed at the CrossFit Games. Siemens hadn't even heard of Olympic weightlifting until she started CrossFit in 2010 at the age of 22.

"(CrossFit has) brought a lot of awareness that it's a sport," she said. "People don't assume I'm a bodybuilder now."

Siemens added with a laugh: "They still think I'm a powerlifter." Lacey Rhodes' experience has been similar.

"Still when I tell people I do Olympic weightlifting they say, 'No, you don't. You can't," said Rhodes, who competed at the 2015 IWF World Championships and is a head coach at CrossFit Outlaw North in Ontario, Canada.

Many think weightlifting means bodybuilding.

"They just don't have an understanding of it," Rhodes explained. "CrossFit definitely, definitely helped with the understanding of the actual sport."

And while Siemens echoed Waxman's statement that the two sports can have a symbiotic relationship with many athletes successfully competing in both CrossFit and weightlifting, she said there are limits.

"I don't think CrossFitters could set a new world record (in weightlifting)," she said. "Prove me wrong—I think that would be awesome. But I think it takes a lot to set a world record."

Tia-Clair Toomey, who this year placed second at the CrossFit Games for the second consecutive year, also competed on Australia's Olympic team as a weightlifter in Rio.

The 23-year-old was criticized for her performance because she didn't set any records and was not solely focused on weight-lifting.

Those critics, Waxman said, are "making a big deal about nothin'."

"Look, if she was Chinese ... she wouldn't have made the team because they have a lot of great weightlifters in China. They don't have a lot of great weightlifters in Australia. She didn't bend any rules. The AWF had rules and she met the requirements."

Of course, if he was Toomey's personal weightlifting coach,

Waxman said he would have a problem with her splitting her time between competing in CrossFit and competing in weight-lifting.

But at the end of the day, Toomey's participation in both sports provides even more exposure for weightlifting, he continued.

"It's another avenue for people who might not have seen weightlifting," Waxman explained.

He added: "I think it's a good 'fuck you' to people in weightlifting who have a stick up their ass about CrossFit."

For his part, Andrews said he'd like to see USAW and CrossFit work more closely.

"In terms of athlete recruitment we certainly can be helped by CrossFit," he said. "You almost can't demerge CrossFit and weightlifting at this point. They're so intertwined."

About the Author: Andréa Maria Cecil is assistant managing editor and head writer of the CrossFit Journal.



Weighing more than 500 lb. each, Phil and Marlo Brown were headed for an early death at the hands of chronic disease. CrossFit changed that.

BY ANDRÉA MARIA CECIL

Their goals were simple.

"Show up," Marlo Brown wrote in silver-colored marker on the "goals" blackboard at Cloud 9 CrossFit in New Jersey.

Her husband, Phil: "Wear my shirt."

When the couple first walked into the affiliate three years ago, Marlo weighed 430 lb. Phil weighed 502 lb. When Phil sat on one of the rowers, the machine bowed under his weight. Once they joined, Marlo was thinking she would try her damnedest to be there three times a week, and owner Chuck Makatura gave Phil an XL T-shirt—the largest he had. Phil wore a 5XL at the time

Today, 49-year-old Marlo has the highest attendance of anyone at Cloud 9 CrossFit—including Makatura. And on June 2, 42-year-old Phil drew a line through "Wear my shirt" on the blackboard to the applause and high-fives of the rest of that evening's 6:15 class.

At her heaviest, Marlo was 530 lb. at 5 foot 9; Phil was 570 at 6 feet tall. Now Marlo weighs 234 and Phil weighs 297.

Before starting CrossFit, Marlo had lost roughly 100 lb. through diet, but a three-night stay in a hospital scared her enough to want more drastic changes.

"I got an infection," she explained.

It started as an allergic reaction to shampoo. But Marlo scratched her ankle so badly she broke her skin. Her poor circulation wouldn't let the wound heal.

When she was discharged, she left with six prescriptions. She also found out she was diabetic.

Marlo's health markers—including blood pressure and cholesterol—were "through the roof." At the time, she worked in the billing department of the same hospital, so she knew what they meant.

"If I saw those numbers on anyone else, I would have said, 'They're dead.' And they were mine."

At the time, Marlo couldn't walk the entirety of a city block without stopping at least three times to catch her breath. A simple trip from the couch to the bathroom elicited pain.

Phil, meanwhile, had been on bipolar medication since he was 18 and blood-pressure medication since he was 25. He had an awful snore and was an undiagnosed narcoleptic. He frequently fell asleep while driving.

"I almost ran headlong into a pickup truck," he said.

So when Marlo got her six prescriptions, she was resolute.



At their heaviest, Phil was 570 lb. and Marlo was 530. Each has now lost almost 300 lb.





"I said, 'I am not taking any of these."

She met with her family doctor, who told her she had to take the diabetes medication, and if she wanted to get off it—and avoid the other five medications—she knew what she needed to do.

A year earlier, Marlo had watched her 68-year-old father die of his 10th and final stroke. He suffered from high blood sugar, as well as high blood pressure.

* * *

It was a slow go when the couple first started CrossFit, Makatura remembered.

"I was kind of overwhelmed," he said. "I didn't know where to start."

Phil and Marlo could not get down onto the floor, much less get up from it. Running, squatting to full depth, jumping rope were all out of the question.

So the Cloud 9 coaches did what every other coach at every other affiliate around the globe does: They scaled for their athletes' physical and psychological tolerances.

Phil and Marlo ran in place instead of running outside, they squatted to a high plyo box instead of getting their hip creases below their knees, they hopped in place instead of jumping rope. For wall-ball shots, they squatted to a box, threw the medicine ball into the air and caught it before squatting again.

"Our goal was to get them to do their best," Makatura said, "and still maximize intensity through scaling."

Today, Marlo is running and doing ring rows, and Phil recently got his first double-under after making his first box jump at 10 inches.

"I told them, 'Listen, just focus on that two seconds or that 5 lb. Give me those small PRs because you guys are in this for the long run," Makatura said he told them.

For the Browns, CrossFit has given them back their lives.

No longer must they avoid the booth at the restaurant or shop at specialty clothing stores.

"These little things make our day," Marlo said happily.

Phil, previously resigned to an existence of poor health, had once thought, "This is the life we've chosen. ... It's gonna get worse."

Marlo added: "We were sitting in our living room waiting for death. I don't know that we'd be alive."

They could have ended up in an electric scooter with atrophied muscles—like so many of Phil's relatives—or suffered a long, miserable death at the hands of one chronic disease





With hundreds of pounds behind them and a new lease on life, Phil and Marlo now have fitness goals that include rope climbs, pull-ups and improved squats.

or another, they said.

"Either we would have died from a heart attack or I would have killed us from falling asleep (while driving)," Phil said.

"Now he's wide awake all the time," Marlo noted cheerfully.

And their CrossFit experience has evolved: It's now more than just a way to shed pounds.

"I have goals for myself when it comes to working out instead of just losing weight," Marlo said. "Seeing what I do here, I want to do better at these things."

She wants a rope climb and a pull-up instead of those pesky ring rows. Phil is working to improve his squat and recently tried paddle boarding for the first time.

"They're the epitome of what CrossFit really is," Makatura said.

While CrossFit Games athletes are admirable for their athletic feats, Phil and Marlo have embodied the definition of fitness, he noted.

"Increasing work capacity—that's what they've done," Makatura continued. "I'd rather have 100 Phil and Marlos than 100 Rich Fronings. Even though Rich Froning's a sexy stud, their ability to overcome adversity is second to none."

About the Author: Andréa Maria Cecil is assistant managing editor and head writer of the CrossFit Journal.





Yes, we know you feel like you didn't accomplish anything on deadlift day.

It's very clear you're unhappy that you are not out of breath and dripping with sweat.

We're just going to lie here on the rubber with shaking legs while you head over to the corner to bang out 100 burpees for time.

We'll even start the clock if you feel the need to hit a quick Fran. But we're wrecked from heavy day, so please don't ask us to join you.

Here's why: You're part of a CrossFit program.

Conditioning is a big part of CrossFit. Many workouts done in CrossFit gyms and programmed on CrossFit.com cause you to sweat heavily, breathe hard and collapse on the floor at the end. These workouts range from relatively short tests such as Fran to longer challenges such as Cindy, and many Hero workouts take athletes into time domains past 20 minutes.

Among the benchmark workouts, you'll find a CrossFit Total containing pure strength work in the form of three max lifts, but CrossFit's most well-known benchmarks tend to be tests of conditioning more often than tests of absolute strength. Perhaps that causes many people to define CrossFit with the likes of Helen, Karen and Annie and actually apply the term "CrossFit workout" to any challenge that makes the lungs burn.

While it's true that Fran is one of CrossFit's signature workouts and great test of certain aspects of fitness, it's but one part of a program that emphasizes constant variation and competency in 10 areas of fitness.

From CrossFit's "Level 2 Training Guide and Workbook": "While people sometimes characterize CrossFit by the mixed-modal workouts for time ('met-cons'), this is a limited view. Days devoted to strength training are an essential variant of CrossFit and are also 'CrossFit' workouts."

"Days devoted to strength training are an essential variant of CrossFit and are also 'CrossFit' workouts." — "Level 2 Training Guide and Workbook"

In fact, the "Level 2 Training Guide and Workbook" presents an analysis of a month of CrossFit.com programming from December 2015. Of the 23 workouts, six were heavy days—about 25 percent.

These workouts might appear to be strength work only, but that

sentiment ignores the words of CrossFit Founder and CEO Greg Glassman, who outlined the big picture with respect to weight-lifting in "What Is Fitness?": "The benefits of weightlifting do not end with strength, speed, power, and flexibility. The clean and jerk and the snatch both develop coordination, agility, accuracy, and balance and to no small degree."

That bit of wisdom is also part of the "Level 1 Training Guide."

All this means little to those drunk on met-cons—the "met-heads."

You're a member of this gym subgroup if you dislike, avoid or simply see no point in strength work, to include heavy, low-rep powerlifting and weightlifting movements.

If you are a met-head, you generally hate the following:

- Any lifting workout involving singles, triples, fives or eights.
- Any workout that involves rest between heavy efforts.
- Any load above about 95/65 lb.
- Any heavy variation of a Girl workout.
- The phosphagen system.
- Efforts lasting less than two minutes.
- CrossFit Journal articles by Bill Starr.
- · Powerlifting and powerlifters.
- · Weightlifting and weightlifters.

If you're a met-head, you're likely offended already, but read on before missing the point and dumping an under-developed opinion on Facebook.

No one is saying conditioning workouts are bad. They are very valuable in developing fitness.

What I'm saying is that if you are part of a CrossFit program but avoid lifting workouts, you are missing out on a significant portion of the program and will not get as fit as you could have had you but grabbed a heavy barbell once in a while.

If you are part of a CrossFit program but avoid lifting workouts, you are missing out on a significant portion of the program and will not get as fit as you could have had you but grabbed a heavy barbell once in a while.





As a met-head, you have a faint but still-present connection to the long-slow-distance mentality that says longer and more are better and you aren't training unless you're breathing hard.

Long workouts are absolutely part of CrossFit, and you most definitely need to do longer aerobic efforts such as a 10-km run from time to time. "More" is also required at times—such as when you tackle a challenging Hero workout and test your endurance and stamina with a large amount of reps.

Some athletes who are lacking in endurance—count me in this crowd—would do very well to spend some extra time running, rowing or swimming. That's called "targeting a weakness," and if it's done properly, it will result in greater overall fitness.

But, in general, longer and more are not "better" in the CrossFit world; they are only part of the constantly varied CrossFit world.

CrossFit's Third Fitness Standard (also outlined in "What Is Fitness?") states that total fitness demands training in each of three metabolic pathways: phosphagen, glycolytic and oxidative. The first, the phosphagen system, is trained predominately with efforts of about 30 seconds or less—think sprints, weight-lifting, powerlifting and short maximal efforts. Ignore this metabolic pathway at peril to your overall fitness.

A common complaint from a met-head after a 3-rep-max dead-lift: "I don't feel like I got a good workout."

Compare that to the athlete who's quivering on the floor after grinding her way through 3 very heavy reps that took a piece of her soul.

Here's some perspective: Many lifters get the "Fran feeling" in their stomachs before a PR attempt because they know the effort is going to take everything they have. Others look at a racked barbell that's bending under the weight of an upcoming squat attempt and get the exact same butterflies you get before a run at a 5-km PR.

After a maximum effort on the barbell, many lifters are utterly taxed—physically, emotionally and spiritually. They're completely done and badly in need of some couch and Netflix while the body and mind recover. That single deadlift was so challenging and stressful that they need no other fitness training for the day. Believe it.

As a met-head, you likely won't experience that because you don't put in maximal effort on strength days. The same way a lifter might merely try to survive a long run by putting in the work but not pushing very hard, you seek to survive strength work by avoiding safe but heavy loads that would truly challenge your strength.

By short-circuiting strength work—or by avoiding it altogether—you receive few or none of its benefits and consequently see no value in it. And so you avoid it. It's a vicious circle.

The solution is simple: Lift something heavy once in a while as part of well-programmed CrossFit training. You don't even have to do it very often—maybe about once a week or so. Doing so will not affect your conditioning, and you certainly don't have to enjoy it as much as you enjoy the crunch of leaves underfoot during a 5-km trail run in autumn. You just have to do it with the knowledge that you'll be fitter for it.

In fact, we'll join you on that trail run if you come by the gym and work up to a heavy deadlift triple first. We'll chalk up, rattle a few plates as a group and then cheer you on as we try to keep up with you.

And we'll all get fitter together.

About the Author: Mike Warkentin is the managing editor of the CrossFit Journal and the founder of CrossFit 204.





Jonathan Burns remembers the soul-sucking pain of a 2-kilometer ergometer test.

His best score in his rowing prime was 5:56—an all-out effort that left him in a physical shambles, he said.

"I would be lying there recovering for two days after a 2-kilometer test," said the former college and national-team rower and current owner of CrossFit Coeur D'Alene in Idaho.

"We would taper before them, and then you couldn't do anything after. We'd be shot. Maybe we'd go for a light paddle the next morning, but that was it."

All high-level rowers can relate to Burns' experience. It's incredibly difficult to recover from a 100 percent rowing effort, Burns explained, which is why most training days are spent working at intensity levels below an athlete's capacity.

Burns remembers doing a common workout in training: three 2-kilometer pieces on the ergometer with approximately five minutes of rest between each. Burns said he would usually hold somewhere between 6:03 and 6:10 on the pieces. While the workout is challenging, it wasn't that difficult to recover, he said. Often, it was even followed by a second row later in the day, he added.

Think about that: A 2-kilometer row in 5:56 left Burns a physical mess for two days, yet he could maintain a pace seven to 14 seconds slower for three consecutive pieces. And he could recover to train a second time that day.

If about 10 seconds is the difference between life and the edge of death on the rower, what does that mean for CrossFit work-outs? Consider Jackie: a 1-kilometer row followed by 50 thrusters and 30 pull-ups. Do you hit the row hard and risk imploding to be first on the barbell? Or do you sandbag the row and come off fresh knowing you can make up time on the thrusters and pull-ups?

Investing Wisely in Meters

Peter Dreissigacker is the founder of the rowing company Concept2 Inc., a business he started with his brother Dick back in 1976.

Concept2's ergometer monitor has a built-in algorithm that was designed to mimic the fluid resistance of a rowing shell going through water, Dreissigacker explained. This means a monitor on the meters setting—as opposed to the calories setting—forces a rower to work really, really hard to increase his or her speed, he said.

"That's what happens when you're in a boat. It's because of the drag on the water. This means you put a whole lot more effort in and you go just a little bit faster."

Thus, rowing 500 meters in 1:45 can make you feel like you're going to die, while going just five seconds slower over the same distance barely hurts at all, he added.

When you're competing in the sport of rowing, it makes sense to go as hard as you can because the only goal is to move the boat faster—or to get the best possible time on the ergometer—but using a rowing machine during a multi-modal CrossFit workout changes the game completely, Dreissigacker said.

"The way the ergometer is designed ... throws a wrench into CrossFit competitions, as it has created this whole dilemma of 'how hard do you go?" Dreissigacker explained.

"Going faster makes it exponentially harder, and the effort level isn't worth it for five seconds over 500 meters."

—Jonathan Burns

To illustrate the point, Dreissigacker put together a theoretical graph that uses wattage and time to compare the ergometer to power cleans. Dreissigacker admitted his graph isn't perfect as it doesn't take a person's body weight into consideration, nor does it consider the "internal efficiency of a person's body," he said. Limitations aside, Dreissigacker is confident the graph accurately highlights the effort-to-reward ratio when comparing rowing to power cleans.





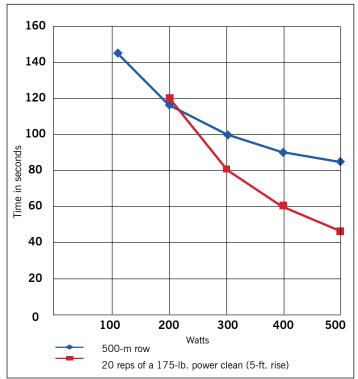


Figure 1: Time to complete a 500-meter row vs. 20 175-lb. power cleans at increasing power outputs. Note that increasing power output from 200 to 400 watts saves only about 25 seconds on the rower but 60 seconds on the barbell. (Source: Peter Dreissigacker)

"The graph illustrates that as the athlete's power increases, the time to complete the rowing segment decreases, but not as fast as with other movements, like a power clean in this case," he said.

In other words, you'll save more time by working hard on power cleans than you will on the rowing machine. For example, slacking off to a 70 percent effort during power cleans will hurt your overall time in a workout far more than slacking off during a 500-meter row, Dreissigacker said.

"If you're doing a workout (on the ergometer) and you're capable of doing 300 watts and you decide, 'OK, I'm going to do 200 watts,' you're only going to lose 15 seconds. But if you're doing power cleans and you can do 300 watts and you go down to 200 watts, you'll lose 40 seconds," he added, referencing Figure 1.

Applying this information to get the best time on Jackie, you might complete the 1-kilometer row 10 to 15 seconds slower than your best all-out effort, ensuring you come off the rowing machine relatively fresh and ready to pick up the barbell right away.

If you row too hard, it might take you 15 seconds just to stum-

ble off the machine and another 15 seconds to recover enough to consider picking up the barbell. On top of that transition time, you'll likely have to slow your thrusters and break more regularly, causing you to add more seconds—or minutes—to your overall time.

Jackie clearly illustrates the point Dreissigacker made with his graph: You're better off slowing down the rowing and hitting the thrusters at 90 percent.

Burns—a CrossFit Rowing Specialty Course coach—doesn't need a graph to explain Dreissigacker's conclusions about the best way to approach a row in most multi-modal CrossFit workouts. He's learned from experience in the sport, he said.

"Going faster makes it exponentially harder, and the effort level isn't worth it for five seconds over 500 meters. So I definitely use the row portion of the workout just to catch my breath."

Of course, the fitter you are, the faster your "comfortable" rowing pace and the lower your overall workout times. Fit, intelligent athletes will know the pace they can maintain in advance of work off the rower, and they won't be rattled when a rival pulls 500 meters in 1:28 and leaves the ergometer first.

What About Calories?

When a row is measured in calories, it's a different story for a CrossFit athlete, Dreissigacker said.

"If the work is done in calories, it's not the same game as if it's done in meters because the calories don't have the same effect as the meters," he said.

He added: "The calorie setting is about as scientific as we can be without plugging in all the individual factors, like body weight and metabolism speed. It ends up being a unit that resembles calories somewhat and is consistent for everyone."

The calorie setting on the ergometer doesn't take water resistance into consideration the same way, so calories are earned differently than meters. On a practical level, the calorie setting rewards athletes for pushing harder. And much more time can be made up when the row is for calories, Dreissigacker said.

To emphasize the point, Dreissigacker again used a graph, this time comparing calorie rowing to power cleans. The result: The two movements look quite similar in terms of effort-to-reward ratio (see Figure 2).

"This means you're probably better off pushing the rowing (portion

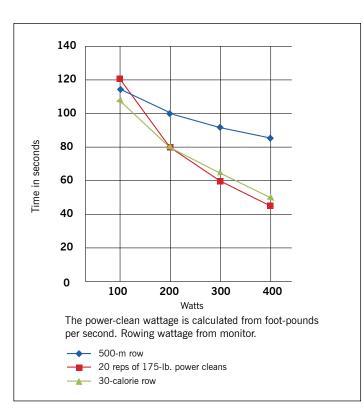


Figure 2: Time to complete a 500-meter row, 30-calorie row and 20 175-lb. power cleans at increasing power outputs. Note that the increased effort is rewarded similarly when comparing the row for calories with the barbell work. (Source: Peter Dreissigacker)

of a workout) a little harder on calories." he said.

When the ergometer is set to calories, lower levels of effort cost the athlete time and actually force him or her to row farther than athletes working with more intensity.

Let's consider Workout 15.5 from the 2015 Reebok CrossFit Games Open: 27-21-15-9 calories on the rower and thrusters.

If Athlete A held an average of 2,653 calories per hour—a blistering pace—he would spend 1:38 on the rowing machine to complete all 72 total calories, rowing 611 meters in the process (see Table 1).

If Athlete B held an average of 507 calories per hour—quite slow—he would spend 8:32 on the rowing machine, covering 1.421 meters.

Consistent Pacing

Finding your perfect rowing pace for a CrossFit workout is a learned skill, Burns said.

| 500-m split Calories/hr | | 27 Calories | | 21 Calories | | 15 Calories | | 9 Calories | | TOTAL | |
|-------------------------|------|-------------|--------|-------------|--------|-------------|--------|------------|--------|-------|--------|
| | | Time | Meters | Time | Meters | Time | Meters | Time | Meters | Time | Meters |
| 1:20 | 2653 | 0:37 | 229 | 0:28 | 178 | 0:20 | 127 | 0:12 | 76 | 1:38 | 611 |
| 1:30 | 1952 | 0:50 | 277 | 0:39 | 215 | 0:28 | 154 | 0:17 | 92 | 2:13 | 738 |
| 1:40 | 1505 | 1:05 | 323 | 0:50 | 251 | 0:36 | 179 | 0:22 | 108 | 2:52 | 861 |
| 1:50 | 1205 | 1:21 | 367 | 1:03 | 285 | 0:45 | 204 | 0:27 | 122 | 3:35 | 978 |
| 2:00 | 997 | 1:37 | 406 | 1:16 | 316 | 0:54 | 226 | 0:32 | 135 | 4:20 | 1083 |
| 2:10 | 848 | 1:55 | 441 | 1:29 | 343 | 1:04 | 245 | 0:38 | 147 | 5:06 | 1175 |
| 2:20 | 739 | 2:12 | 470 | 1:42 | 365 | 1:13 | 261 | 0:44 | 157 | 5:51 | 1253 |
| 2:30 | 657 | 2:28 | 493 | 1:55 | 385 | 1:22 | 274 | 0:49 | 164 | 6:35 | 1315 |
| 2:40 | 594 | 2:44 | 511 | 2:07 | 398 | 1:31 | 284 | 0:55 | 170 | 7:16 | 1363 |
| 2:50 | 545 | 2:58 | 524 | 2:19 | 408 | 1:39 | 291 | 0:59 | 175 | 7:55 | 1398 |
| 3:00 | 507 | 3:12 | 533 | 2:29 | 415 | 1:47 | 296 | 1:04 | 178 | 8:32 | 1421 |

Table 1: Time and distance required to earn 27, 21, 15 and 9 calories on the ergometer at various intensities. Note that an athlete rowing a 1:30 pace will accumulate the total calories about three minutes faster than an athlete rowing at a 2:10 pace. The second rower will have to cover an additional 437 meters to accumulate all 72 calories. (Source: Peter Dreissigacker)

He suggested athletes need to know what 100 percent effort feels like so they can determine other levels of effort.

"It comes down to becoming familiar with your paces from a time-domain standpoint," he said. "For instance, if I know my 2-kilometer time is seven minutes, then I can hold a 1:45 500-meter split for seven minutes. So if I'm doing a workout in the five-to-10-minute time range, then I can expect (to use that number) to figure out my pace for that workout."

For example, Christine consists of 3 rounds of a 500-meter row, 12 body-weight deadlifts and 21 box jumps. If you know the workout will take you 10 to 12 minutes, then you need to know your comfortable rowing pace for 12 minutes so you can aim to hold that pace for all three 500-meter pieces during Christine.

"Get to know your paces in both the meters (setting) and the calories (setting) and apply that to a (multi-modal) workout of a similar time domain," Burns said.

Josh Crosby is a former world-class rower who has devoted his life to teaching others how to pace themselves on indoor rowing machines. He co-founded and runs the Indo-Row program, a coached 50-minute group-class rowing workout. Indo-Row uses Waterower Gx indoor rowing machines similar to Concept2's ergometers, Crosby explained.

The key to staying on the machine for an entire 50-minute class comes down to understanding how fast you should go during short intervals and longer endurance pieces, Crosby said. It gen-

"The number one thing is when you're watching your split time, try to hold that same split over and over and not let it fluctuate up and down."

—Josh Crosby

erally comes down to finding a consistent pace to hold throughout any given piece, he added.

A world-class rower can close his eyes and hold virtually the exact same split time stroke after stroke for 30 minutes, Crosby explained. While that kind of precision is uncommon, Crosby hopes his athletes can become as consistent as possible.

"We talk a lot about flying and dying—meaning going out too hard and crashing. We don't want that. The number one thing is when you're watching your split time, try to hold that same split over and over and not let it fluctuate up and down."

The best way to develop this awareness is simply to put in the strokes, Crosby said.

"Repeating the same workouts a few times also helps," he said.

"No matter what distance you're asked to row, you should have an idea of your fitness capabilities. You should never think, 'Oh my gosh, I'm obliterated. I feel like I need to stop.' You should never feel like you need to stop. You need to learn to control your exertion levels."

Rowing's Relevance

While Dreissigacker, Burns and Crosby all emphasize the importance of learning to pace to avoid obliterating yourself during a CrossFit workout, they also reiterate that you can still work hard on the rowing machine. When you improve your rowing mechanics and efficiency, as well as your endurance, power endurance and overall capacity, your 80 percent effort during a multi-modal CrossFit workout will also improve, Burns said.

The point is rowing is still important for a CrossFit athlete.

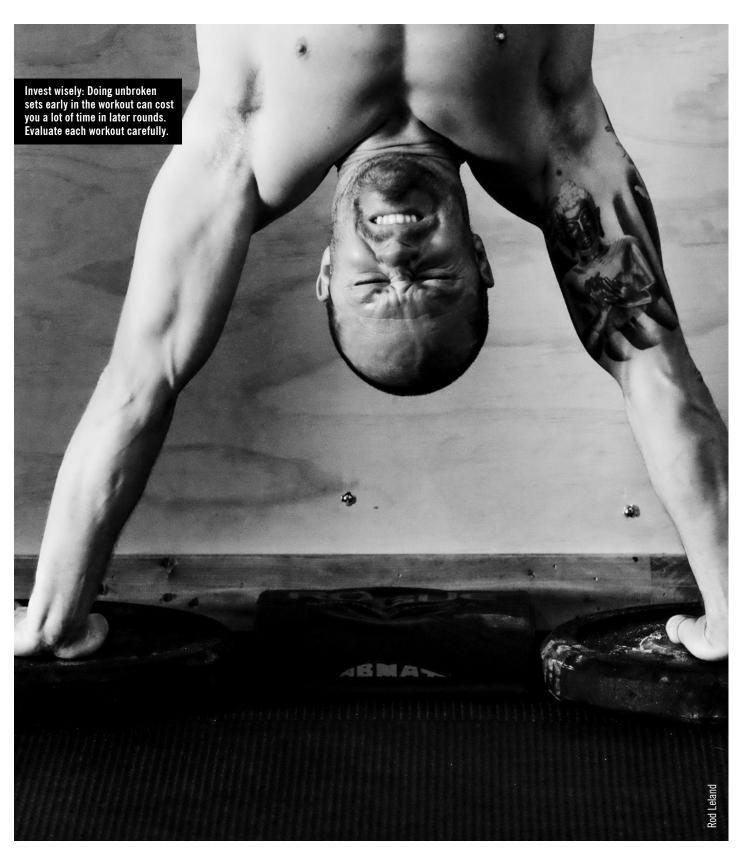
"It's just that you're usually not going to win the workout with the row," Burns said.

But if you don't row with intelligence, you can definitely lose it on the row.

Oct. 31, 2016—Corrects to identify Josh Crosby as co-founder of the rowing program Indo-Row.

About the Author: Emily Beers is a CrossFit Journal contributor and coach at CrossFit Vancouver. She finished 37th at the 2014 Reebok CrossFit Games.





"But what if I can't do it unbroken?"

From time to time, I hear this posed as a legitimate question from athletes as they read over a workout description. They look at the movements, the loading and the rep scheme. They assess their current capabilities. Quick math is done in their heads. Their facial expressions change and the question shoots out of their mouths: "What if I can't do this unbroken?"

My answer is always, "Well, then break it up."

I'm not sure when going unbroken became "a thing" or how many athletes the mentality affects, but I've heard the question asked often enough that it should be addressed. I will highlight the two most recent workout examples that pop into my head:

Example 1

CrossFit Linchpin: Test 5

For time:

20 back squats (225/155 lb.)

2-mile run

20 back squats (225/155 lb.)

When I posted this workout, the "what should I do if I can't do the squats unbroken?" question was asked several times. I let people know the workout description did not call for unbroken squats. But somehow the need to avoid racking the barbell entered their heads. Perhaps all of us normal folks follow too many CrossFit Games athletes on Instagram and therefore put unrealistic/unnecessary expectations on ourselves. Maybe the pressure is coming from somewhere else. I can't pinpoint the source, but it's out there.

I let people know that even though I could perform the squats unbroken for this workout—at least the first set—I had no intention of doing so. For me, stringing together 20 back squats at 225 would be so taxing that it would destroy my 2-mile run and therefore lead to a slower overall time. If memory serves, I did the first 20 reps as 6-5-3-3-3. I made sure to take very little rest between the sets, and then I was off on the run. The final set of squats was broken up even more.

I could've done the final set of 20 as maybe 10-10 or even 15-5. However, I would have had to slow my run down to a non-challenging pace or run fast and then stare at the barbell for 90 seconds before doing my first squat.

Doing something unbroken does not necessarily mean you will do it faster. If the goal is to accomplish the overall task as efficiently as possible, then that is the goal—not doing it unbroken.

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Example 2

3 rounds for time of:

30 wall-ball shots (20/14 lb.)

20 toes-to-bars

10 front squats (225/155 lb., no rack)

I attempted this workout as prescribed but the plan changed quickly. A 225 front squat for reps is never "easy" for me, but it is realistic. I knew that even if it was possible to do the first set unbroken, it would not be wise. So my plan going in was 5-5 or 4-3-3 with short rest to complete the opening round.

I did the wall balls (which I despise), then the toes-to-bars (broken), then power-cleaned the barbell. Immediately it felt like the heaviest 225 lb. I had racked in a while. I knew the 5-5 plan was out the window. Maybe it was the wall balls, maybe the toes-to-bars, or maybe I simply overestimated my fitness. Whatever the reason, I had to deviate from my plan to knock this out "as RX'd."

Moving to Plan B: 4-3-3. I did 4 front squats and dropped the bar. I was also more out of breath than I expected. When I felt ready, I set up on the bar and hoped for a power clean, but it turned into a squat clean. Let me clarify: It turned into a failed squat clean. I was ejected about 3 feet back from the barbell. Right then and there I saw the writing on the wall and dropped the loading to 205. I completed the workout, and it was miserable.

I posted the workout on Instagram—which is required as far I know. Someone I don't know posted a comment with two questions: "If you couldn't do 225 for 10 easily then what is the point of putting it last in the workout? What's was (sic) the goal of this wod?" I did not respond because who wants to type that much on a phone? However, the questions made me see that perhaps some people don't realize there are many different ways to program workouts for a variety of goals.

Let's take the first question: "If you couldn't do 225 for 10 easily then what is the point of putting it last in the workout?"

Since when do things need to be easy in Round 1? It was intended to be quite a big challenge from the very first round. After





Round 1, the following two rounds were supposed to feel like a trip through hell. Nothing about this workout was ever designed to be easy. I truly thought I was going to be able to do it as prescribed, but that was not the case. Scaling the loading to 205 allowed me to finish the workout, but even then it was not unbroken. Not everything has to be unbroken and easy from Round 1. Sometimes a workout is designed to be unbroken and super fast, but that was not the case here.

Question 2: "What's ... the goal of this workout?"

My short answer: fitness. A slightly longer answer: I wanted to hit the legs with a fast high-rep movement like the wall-ball shot, then tax the midline and grip through the toes-to-bars, and then challenge the athlete's legs again—also attacking the midline and grip—with some miserably heavy front squats from the floor.

If you cannot do something unbroken, please do not feel pressure to do so.

Truly being fit means being well rounded, versatile, highly capable and ready for anything. Sometimes life throws challenges at you that are much harder than you anticipated right from the first second. Not all of life's tasks are like that, and so not all of our workouts are like that. We strive to expose ourselves to as many loadings, time domains, rep ranges, pieces of equipment and other factors as we can. This workout was just a singular piece in a very large puzzle laid out over weeks, months and years.

Going unbroken on a single movement or entire workout is almost never required unless the workout specifically demands it. Workouts like that are rare. Going unbroken might or might not be the fastest or most efficient way to accomplish the work. If you cannot do something unbroken, please do not feel pressure to do so. Managing your personal tolerance of work-to-rest ratio will yield the greatest results for you.

If you can't do something unbroken, don't.

About the Author: Pat Sherwood is an analyst on the CrossFit Games "Update Show." He is also a CrossFit Media project manager as well as a former flowmaster. He's done just under 200 seminars all around the globe for CrossFit Inc. and competed in the 2009 CrossFit Games. He hates HSPU and loves ice cream.

Carbohydrate Selections: The Right Carb for the Right Job

Whole, unprocessed carbohydrate sources have significant A total of 13 vitamins (water and fat soluble) and 14 minerals health and performance benefits that might go unnoticed with macronutrient counting. For example, a doughnut and an orange can both provide the carbohydrate grams one needs, but other constituents should be considered. Even honey has more health value compared to table sugar due to the vitamins and minerals it contains. This brief describes some of the factors to consider when selecting carbohydrates, including total carbohydrate grams. While the brief is not meant to be exhaustive, this information can help someone make more optimal choices based on needs and goals.

When selecting a carbohydrate, consider these components:

- Total carbohydrate (for body composition)
- Non-caloric constituents (for health)
- Fiber (for satiety)
- Glucose vs. fructose (for recovery)

Total Carbohydrates and Body Composition

The first consideration is how many grams of carbohydrate are in the selected portion and what percentage of your daily allotment this total represents. Consistently overeating carbohydrates, regardless of the source, can stymie health and performance goals. (Consumption of too much protein and fat will also affect health and performance: The body preferentially uses carbohydrates and proteins for energy, with fat being stored until the carbohydrate and protein have been metabolized.) A bottle of juice can often have 50-plus grams of carbohydrate, which might represent a very high percentage of daily intake for someone who is aiming for 150 total grams in a day. A simple question can help with selections: "Do I want this food to represent X percent of my carbohydrate allotment for the day?"

Non-Caloric Constituents and Health

Micronutrients (vitamins and minerals) and phytonutrients (plant-based compounds believed to promote health) do not provide significant calories but have long-term beneficial effects on health and performance. Bruce Ames has put forth a "triage" theory relative to chronic disease: Vitamins and minerals in short supply (i.e., a deficiency) will be preferentially used for immediate needs at the expense of longer-term health. This provides a rationale for eating nutrient-dense foods even when current below) should avoid fiber. health and performance markers are favorable.

(macro and trace elements) are required by humans. These include micronutrients such as magnesium for ATP production, iron for oxygen delivery and vitamin E for its antioxidant capacity. Phytonutrients such as resveratrol in wine and curcumin in turmeric have been linked to antioxidizing and anti-inflammatory effects. Thousands of phytonutrients exist, with the effects and potency of many unknown. The closer a food is to its natural form, the higher the concentration of micronutrients and phytonutrients. Industrial processing strips these elements and potentially adds dyes and chemicals with unknown long-term effects. Processing typically also adds "empty calories"—such as more sugar—without micronutrients and phytonutrients. The empty calories represent a lost opportunity to maximize health.



Fiber and Satiety

Fiber is non-digestible and therefore sometimes subtracted from carbohydrate totals. However, fiber is broken down in the small intestine and used by bacteria therein (and therefore also associated with health).

One should decide to consistently count fiber toward carbohydrate grams or leave it out, but note that fiber also helps with satiety. This is in part due to fiber's slowing of the digestion process and blunting of the insulin spike (and subsequent crash). but it is also because high-fiber foods are not as carbohydrate dense. This means one can eat a greater volume of high-fiber foods compared to low-fiber foods, thereby feeling more full. For example, about 5 cups of broccoli are equal to 2 cups of halved strawberries or half a cup of rice in terms of total carbohydrate

The slowing of the digestion process also means people looking for fast-absorbing carbohydrates (for purposes such as recovery,

Recovery: Glucose Vs. Fructose

Although this explanation is a bit simplistic, it will suffice for our purposes: Dietary carbohydrates become either glucose or fructose for metabolism. Plant-based foods—specifically vegetables (green and root), legumes, nuts and grains—are primarily chains of glucose molecules linked together in various ways (e.g., cellulose and starch).

Fruit contains fructose and glucose in approximately equal proportions. This is why fresh fruit and table sugar are similar: Essentially, they both contain 50 percent fructose and 50 percent glucose, with some variation based on source. Fruit and foods with added sugar contain fructose. Generally, everything else is glucose (or converted to glucose; i.e., galactose in dairy).

The body handles glucose differently than fructose. Those looking for quickly absorbed carbohydrates in the post-workout window—either for the insulin spike to promote anabolism and/ or to maximally refill muscle glycogen (needed for high-intensity efforts)—should avoid fructose. Fructose neither causes an insulin spike nor refills muscle glycogen but is sent directly to the liver, where it fills liver glycogen or is converted to fat.

Post-workout nutrition is low priority for the recreational CrossFit athlete working out once a day. For this type of athlete, the potential gains from post-workout nutrition are easily surpassed by greater attention to the workout itself and nutrition throughout the day. The greater an athlete's volume, the greater the need to dial in post-workout nutrition, largely because of the decreased time for the body to refuel with regular meals for the next session.



Choosing the Most Optimal

While spinach and kale are low in carbohydrate load, high in fiber, and offer a dose of vitamins, minerals and phytonutrients, they might not be the most optimal choices at all times.

For example:

- Variation: The greater the diversity in one's diet, the greater the diversity in the micronutrients and phytochemicals consumed. It is best to rotate whole food sources to maximize coverage across all nutrients.
- Realistic: Excessive consumption of (green) vegetables to meet carbohydrate needs is uncomfortable at best, if not impossible or even stressful for the digestive system (assuming consumption of more than 100 grams of carbohydrates per day).
- Mass gain/compressed feeding window: Those looking to gain weight might specifically try to avoid fiber and target carbohydrate-dense foods simply to achieve daily targets. Others might employ the same strategies when eating in a compressed window (e.g., fasting).
- Performance: Athletes might find increased performance when incorporating lesser-quality sources specifically near workout times. Quickly absorbed nutrients can aid the recovery process. This is more appropriate for someone doing multiple sessions a day, endurance athletes, and/or individuals with the more important aspects of their diet already dialed in (such as consistently eating quality foods in known quantities).
- Enjoyment: Many people find enjoyment in some treat that cannot be justified based on its ingredients. And that's OK! Dietary indiscretions can serve as sources of motivation for adherence and can be part of social enjoyment.

Overall, various carbohydrate sources can be "optimal" in different contexts based on these factors. It is generally best to select the majority of one's carbohydrates from a wide variety of whole, unprocessed foods. These foods are the most nutrient dense and offer an array of nutrients that can optimize long-term health and performance, but they are not necessarily calorically dense and often inadvertently reduce total caloric intake by making people feel full. However, individuals can optimize choices to meet needs and even fit nutrient-poor and/or carbohydrate-dense items into a varied diet based on whole foods. The "right tool" can be selected for the right job without blanket descriptions of "good" or "bad" for specific carbohydrates.

About the Author: E.C. Synkowski is a Flowmaster for CrossFit Inc. Seminar Staff and has worked at more than 200 seminars. She is the Program Manager for the Training Department and is pursuing a master's degree in human nutrition and functional medicine (anticipated completion in 2017).

CrossFitJOURNAL By E.C. Synkowski

CROSSFIT JOURNAL | OCTOBER 2016