

# THE CrossFit JOURNAL

July 2014

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# THE CrossFit JOURNAL

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## CrossFit Trainer Education and Certification: New Programs and a New Structure

Nicole Carroll, Director of Certification and Training, explains the evolution of CrossFit's trainer credentials.

By Nicole Carroll

July 2014

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CrossFit's growth has been organic and infectious: There were no marketing strategies and no projections for the now more than 10,000 affiliates and 90,000 trainers. It started with one trainer, then one more and then a few more. The only "strategy" was to have fun, get into ridiculous shape and help anyone else do the same. Our numbers grew rapidly, and suddenly there were a lot of us.

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The Level 1 Trainer Courses were, and still are, the primary gateway to the CrossFit community. The Level 1s are the place to learn more about the timeless underpinnings of the CrossFit methodology, and they are the essential experience to becoming a CrossFit trainer and CrossFit affiliate. Successful completion of the Level 1 grants attendees a basic understanding of the fundamentals necessary to train others responsibly. CrossFit Founder Greg Glassman would always close the Level 1 with an appeal to take what you have learned and go out and help others: "Grab a broomstick and go train your neighbor." This is the spirit that has enabled the fitness revolution called CrossFit.

Early on, we recognized the demand from the community for more—particularly from trainers wanting to apply the principle of *virtuosity* to their craft. An educated trainer possesses a solid knowledge of movement mechanics, programming, nutrition and the surrounding disciplines relevant to physical well-being and performance. A more advanced trainer applies this knowledge to program design, discerns sound from unsound movement mechanics, and displays the ability to correct the unsound to maximize safety, efficiency and efficacy.

A great trainer, or coach, builds upon this skill set and approaches each client with a genuine desire to get the best results. A coach, in the relentless pursuit of excellence, tailors an approach to meet individual goals, needs and motivations. A coach inspires clients to be better than they would be by themselves.

With this in mind, we are proud to announce a new structure to our continuum of education and qualifications: the Level 2, Level 3 and Level 4. To understand the value of and rationale for the new programs, a review of their evolution is useful.

### Origins

Longtime CrossFitters may recall the early iterations of a Level 2 and Level 3: They began in 2004. Level 1s were the only organized opportunity to connect with other CrossFit trainers and the greater community. Because of this, trainers continued to come back to repeat the Level 1 multiple times. Working within this model, we offered returning Level 1 trainers the opportunity to act as helpers for the seminar staff. This early model was simple: Learn the basics at your first Level 1, return and assist the core coaching staff to strengthen your



Staff/CrossFit Journal

*In the old days, trainers came back to the Level 1 multiple times to attain higher levels.*

coaching and cueing skill at your second Level 1, and become a “Level 2” trainer. We also offered a “Level 3” title to anyone who repeated “Level 2” by returning and assisting multiple times. These trainers were evaluated each time until they met the criteria to earn a “Level 3.”

Given our resources, the needs of our staff, the demand for trainers and our infancy as a company (less than 50 affiliates at the time!), this was an adequate system. Of course, it was neither a perfect nor enduring solution. We quickly realized the core staff at the Level 1s were torn between instructing Level 1 attendees and developing and evaluating Level 2 or Level 3 trainers. We also realized both groups deserved more, and so we evolved.

A second offering for trainer development was released in January 2008. We offered a separate two-day Level 2 Seminar with small groups and a one-to-seven teacher-to-student ratio. On the first day, attendees worked with instructors to refine their skill at coaching and cueing functional movement. On the second day, attendees put their skills to the test in a performance-based exam. They took turns coaching others in small groups through a series of movements and were evaluated by CrossFit

HQ staff. These performance evaluations were completed that day, and participants received a score and actionable feedback immediately after the course. (Some of you must surely remember those back-room debriefs fondly!)

While administering the Level 2 between 2008 and 2010, we found the desire of attendees to perform well on the exam overshadowed our intent to construct an atmosphere of intensive learning in which training skills could be honed on the first day. Attendees obsessed over memorizing the approach they thought we wanted to see vs. learning and developing essential skills to become a better trainer. The 40 percent pass rate certainly did not help alleviate this tension.

In response, we took the Level 2 out of circulation in 2010 and replaced it with the Coach's Prep Course (CPC). The CPC expanded the Level 2 curriculum but did not include a test. We wanted to provide an experience for individuals who were invested in their education and development toward becoming better trainers. The CPC focuses on the six pillars of good training: teaching, seeing, correcting, presence/attitude, group management and demonstration. We also spend considerable time discussing programming



*The Level 1s, while different now, are still intentionally stamped after the first Level 1s delivered by Coach Glassman.*

and running effective classes. The small-group structure of the CPC maximizes the time for participant interaction, real-time practice and personalized feedback. The idea was to eventually offer a separate performance-based exam for which the Level 1 and CPC would be the best preparation.

This performance-based exam was to become the eagerly awaited “new Level 2.” Our goals were to restructure it and conduct a comprehensive overhaul to ensure quality, consistency and thoroughness. Like the existing Level 1 exam, a complete psychometric analysis was performed to remove bias, establish cut points, and provide objective measures of confidence and fairness. As we would come to learn, the details and scrutiny that go into advanced testing and examination criteria are substantial.

Almost two years into the making of the “new Level 2,” we had learned a tremendous amount about how to provide the best to our participants and trainers. We used that knowledge to determine a path that reflected our goals as a fitness company and address the ever-changing needs of our community with regard to training and education.

What was then to be the “new Level 2” has now evolved into two additional offerings:

- The Certified CrossFit Trainer credential, which is a comprehensive written exam. Attaining this also affords CrossFit trainers a Level 3 (CF-L3) designation.
- The Certified CrossFit Coach credential, the Level 4 (CF-L4), which is a performance-based exam.

Now that you have some perspective on how we got here, the following sections describe the new set of education and testing offerings.

### Certificate Courses

#### Level 1: Level 1 Certificate Course Accredited

Title Abbreviation: CF-L1

During the original three-day intensive Level 1, participants were given a thorough exposure to CrossFit in lectures on CrossFit’s conceptual framework and definitions and its methodology. They were provided with in-depth descriptions of the foundational movements, as well as practical application competing in *multiple* benchmark workouts (also known as an old-school beatdown).

The Levels 1s, while different now, are still very much intentionally stamped after the first Level 1. The format, venue and extent of beatdown may have changed, but the DNA of concept and methodology remain the



Brian Sullivan/CrossFit Journal

***The Coach's Prep Course was born out of the need for more focused trainer development.***

same. It remains a course preserving Coach Glassman’s original, timeless message on developing superior fitness. Participants spend two days with CrossFit’s top trainers learning movement and methodology and—perhaps most importantly—being immersed in CrossFit culture. They experience the excellence, camaraderie and credibility of the community that is exemplified by our staff. There is no offering we value more. Do not mistake the Level 1’s “introductory” nature with lightness; there is a reason why the Level 1 alone is required for affiliation.

We value experiential learning and therefore require full participation from attendees in all parts of the course, including workouts. This credential also has a 55-question multiple-choice test. Passing this test affords the individual a Level 1 Trainer Certificate, and holders of the Level 1 Certificate have demonstrated an understanding of the material taught at the course. The course has been an accredited Certificate Course under the [American National Standards Institute \(ANSI\)](#) since 2010. The Level 1 is the first step on the path to becoming a competent trainer. CF-L1 trainers have the fundamentals required to responsibly train others through firsthand exposure, and they continue to learn via experience.

### Level 2: Level 2 Certificate Course (CPC)

#### Title Abbreviation: CF-L2

As mentioned, the CPC was developed after the 2008-2010 Level 2 was taken out of circulation. Removing the performance test from this course placed the focus primarily on developing skills and creating better trainers. This course was also a response to community feedback suggesting the Level 1 was “not enough” and suggesting the need for increased capacity and quality in an affiliate trainer.

It is recommended students spend at least six months training others in CrossFit before attending the Level 2 (CPC). The course is restricted to 21 attendees, a much smaller student-to-instructor ratio than the Level 1, and two full days are spent “workshopping” training skills. We minimize classroom time and maximize interactive hands-on work while providing actionable feedback to participants. Lectures are discussion oriented and culminate in on-site practical application, such as drills for programming analysis and effective class management.

The Level 2 Certificate Course is an intermediate-level training course meant to provide students with improved skills, a strong sense of their strengths and weaknesses, and actionable ways to improve. Trainers who hold a Level 2 Certificate have demonstrated an understanding of the CPC material to include more intermediate-level seeing, correcting and programming skills. In the absence of any other information, one can assume a CF-L2 trainer is a more experienced and self-aware CrossFit trainer who has spent time identifying strengths and weaknesses, as well as learning actionable methods for improvement and professional development.

#### Certification

### Level 3: Certified CrossFit Trainer Accreditation Pending

#### Title Abbreviation: CCFT and CF-L3

The Certified CrossFit Trainer (CCFT) credential is perhaps the most different from the historical offerings. It is a computer-based examination delivered at testing centers throughout the world.

This exam makes use of photos and videos in addition to written questions. The exam questions are designed to require the candidate to synthesize and apply knowledge gained through his or her training experience. There are also eligibility requirements that include a significant number of practical coaching hours, as well

as continuing-education requirements for maintaining the credential upon successful completion. Of note, the CCFT has two eligibility paths. One path requires CrossFit coursework and training experience, and the other does not. The reason is because the CCFT is under application for ANSI accreditation. One way accrediting bodies such as ANSI ensure impartiality and mitigate conflicts of interest is by requiring a certification to have at least one eligibility path that is independent from the certifying organization.

The CCFT allows the experienced trainer to demonstrate more advanced CrossFit training knowledge and commit to a long-term standard of professional accountability. The purpose is to thoroughly evaluate an individual's knowledge and skills related to safeguarding the health of clients and improving their fitness.

“Certification” means “demonstration,” usually through examination, of current skills and knowledge. Unlike the



Anne Talmey/CrossFit Journal

*The CCFT allows the experienced trainer to demonstrate more advanced knowledge of CrossFit training.*

L1 and L2 *Certificate Courses*, the CCFT is not a training program: There is no course work directly associated with the credential. There is an exam only.

The study material, in addition to coaching experience, is meant to help candidates prepare. The material covers important issues, concepts and methods relevant to CrossFit training. However, candidates must draw primarily on their own experience as trainers to be successful.

Trainers holding the CCFT credential have demonstrated competency across the breadth and depth of CrossFit coaching concepts and skills. They have met the eligibility requirements, including coaching experience and education. They also uphold a standard of professional practice and commitment to continuing education for as long as they hold the credential. This certification is being developed and administered in accordance with ANSI standards of accreditation for certification. Additionally, those trainers who attain this credential via the Level 1 and Level 2 certificate path will also be distinguished as CrossFit Level 3 trainers or CF-L3.

### Level 4: Certified CrossFit Coach

#### Title Abbreviation: CF-L4

There is a consensus in our community, steeped in the no-bullshit, evidence-based tradition, that performance is the sole measure of progress. It is no different for a trainer: What really matters happens with your clients in the gym, not on an exam.

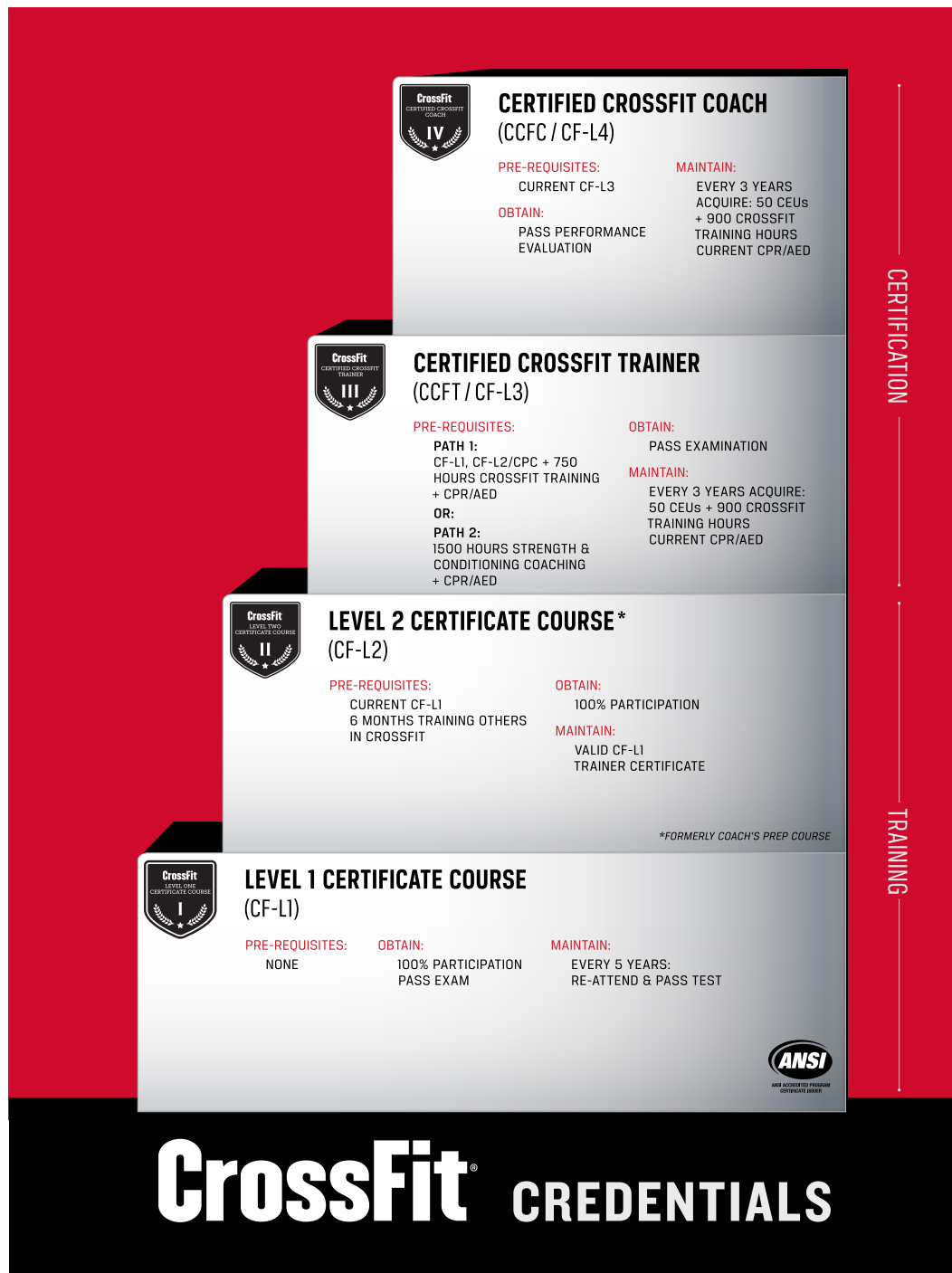
The Level 4 Certification is a performance-based evaluation. It is designed to identify and acknowledge coaches who have mastered their craft. In the early years, the highest honor in the CrossFit community was to be bestowed the title of "Coach." To earn that honor, a trainer had to add significant value to the community through knowledge, talent and hard work. From 2004 until today, the title was officially granted when Coach Glassman called you such. In our minds, it was akin to being knighted.

The Level 4 is based on the concept offered at the 2008-2010 Level 2, as well Coach Glassman's historic designation to distinguish the most senior CrossFit trainers. The



Alicia Anthony/CrossFit Journal

***Coaches who are inspired by the Level 1 can now pursue three additional credentials. Certified CrossFit Coach (Level 4) is CrossFit's highest certification.***



Level 4 is now the highest level of CrossFit credential. Unlike the 2008-2010 Level 2, this performance evaluation will be *a test only with no preparation day*. Candidates will be evaluated on their performance in teaching CrossFit movements to others.

This evaluation is for experienced trainers who have been coaching CrossFit for *several years in a group setting*. It is expected that substantial training experience and the L1, L2 and CCFT prerequisites will best prepare candidates for this credential. The successful candidate will be comfortable coaching a group of athletes of varied and unknown abilities through any number of movements common to CrossFit. The successful candidate will also demonstrate empathy, confidence and maturity in relating to trainees. The goal of this evaluation is to provide a distinction for expert coaches within the community. This credential will be available in fall 2014.

### Credentialing: In Brief

The goals were, and always will be, to improve quality and rigor. We want to impart to the participant the most relevant and thorough training, education and testing that we can. CrossFit credentials need to have as much meaning and value as any credential can have. We want anyone to be able to search for a trainer in our [Directory](#) and have confidence that the higher the credentials, the greater the assurance of the trainer's skill and ability.

That said, is it possible to have a master coach who only has a Level 1 Certificate? A coach who chases down no credential but the minimum to allow him or her to train clients? Absolutely. I know some, and I would train with them in a heartbeat. They thrive, and their businesses thrive, because what really matters is the service and results provided to clients. Improving this service, and striving for best results for the people in their care, drives them each and every day. This is chasing excellence, and no credential can replace it.

Anyone who has a degree or has attained any certificate or certification knows credentials are meaningful only to a certain extent. Certification drives continuing education and staying active in your field. Similar to the trainer mentioned above, a trainer with an orientation toward excellence can capitalize on each credential by utilizing it to become better for his or her clients. Credentials are also meant to set standards and provide some public orientation and assurance in the absence of direct experience or word-of-mouth referral. We all know we would rather

go to the professional our friends rave about vs. the one with six designations after his or her name. Is the trainer good at his or her craft? That is the bottom line. Just because we are growing, getting accredited and distinguishing credentials based on "standard industry definitions" does not mean—not for one instant—that we are forgetting what really matters: the pursuit of excellence and caring about your clients.

Understandably, there are a lot of "what ifs," unique individual situations and questions. Please take the time to read through this [FAQ](#) to see if we have already addressed your questions. If not, please contact [Certifications@CrossFit.com](mailto:Certifications@CrossFit.com) and our team will be happy to assist you.



### About the Author



Nicole Carroll began training in 2004 at the original CrossFit Headquarters in Santa Cruz, California, with CrossFit Founder and CEO Greg Glassman. From 2005 to 2008, she traveled with Coach Glassman and assisted in delivering the CrossFit methodology, fundamentals and movements to Level 1 attendees across the world. Carroll is largely responsible for developing the Level 1 Course into the formalized and accredited curriculum it is at present. As Co-Director of the Certification and Training Department, she currently oversees all of the CrossFit curriculum, testing, and staff development for the Level 1 and 2 Certificate Courses and the CCFT/Level 3 and Level 4 Certifications.

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# THE CrossFit JOURNAL

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## Shell Games and Competency: Education vs. Certification

Lon Kilgore takes a look at the machine that produces fitness professionals, and he doesn't like what he sees.

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By Lon Kilgore

July 2014

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Donavan Winters/CrossFit Journal



The problem with sport, exercise and fitness certifications is that they propose to supplant university education. The problem with sport, exercise and fitness university education is that they can.

Before you applaud or get your shotgun, no one really wins in this scenario—not the trainer, not the trainee.

### Education's Left Turn

Let's consider the expectation of a university education. Once, a university education conjured thoughts of broad thinking, science, literature, maths, civility, prosperity and opportunity. A university was a transition point in thinking and social status. As the 20th century progressed, the perceived purpose of higher education was placed under significant pressure to convert to an engine of commercial support through production of students competent in science and industry. While the focus became more vocational in nature, the core of education retained a strong content of broad disciplinary instruction, which was considered essential in the provision of well-rounded students to private-sector employers who were becoming more reliant on universities to supply literate, skilled employees.

The link of university education to employment training has grown over the past 40 years, as has the number of institutions of higher learning. We have now reached the point that the modern student expects to leave the university with all the knowledge and skills required to be immediately employable. Both the U.S. and U.K. governments have bought into this relationship as well.

There is a problem with employment preparation and student numbers. In 1973, there were 2,837 institutions of higher education in the U.S., and in 2012 there were 4,495. This growth has come with a price tag and a change in the nature of educational delivery. In 1973, 8 million students were distributed across the institutions for an average of 1,100 students per institution. Since 1998, the number of students in higher education has risen to and has stayed at approximately 15 million. This increased the number of students in each institution to an average of 3,337 students.

Although additional faculty were added, the rate of hire did not keep pace with student-body growth. University administration did not complain about this asymmetry as this new economy of scale—more students per faculty member—contributed to a financial bottom line in the black.

The most economical of teaching methods is the traditional lecture, where one faculty member lectures to potentially hundreds of students. While this is a historically proven methodology for information delivery, it cannot provide a platform for the development of skills requisite for modern fitness employment. This limitation is firmly entrenched into the world of educating sport, exercise

and fitness professionals within the university setting.

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**It is an all too common occurrence for graduates ... to leave university with no tangible fitness instruction or programming skills.**

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It is an all too common occurrence for graduates in exercise science, health and fitness, kinesiology, human kinetics, physical education or any of the other programs in operation to leave university with no tangible fitness instruction or programming skills. They have only read about or been lectured on the concepts. Because the three-hours-of-lecture-per-week approach to education is financially viable, they might never have spent a single moment on learning the practical aspects of teaching basic fitness skills such as running and lifting or might never have practiced putting them together into a coherent program that accomplishes a fitness goal.



Donovan Winters/CrossFit Journal

***The shell game of fitness education: sitting in a lecture hall is great for learning theory. But what of practical application?***

(Educational issues are highlighted in previous articles "Paradigm Lost" and "An Aerobic Paradox.")

Another strange permutation of the commercialization of education is the concept of offering "popular" majors or creating majors based on "student demand" rather than on actual economic demand. This approach puts students in lecture halls and fills coffers but does little to achieve the desire of modern students to receive an education that either enriches their lives or provides vocational knowledge and skills.

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Sport and exercise majors are among the most popular at universities worldwide. About 4-5 percent of all students in U.S. higher education will choose a fitness-related major (data from the National Center for Education Statistics). It is not uncommon to have several hundred students

in these programs in the U.S. with less than a half dozen faculty teaching them. In the U.K., the 2011 league tables list one university offering a sport-and-fitness degree with 42 students for each faculty member.

The common administration logic for allowing this to occur is that the high student-to-staff ratios in these popular programs "pay" for the operations of unpopular or low-demand majors. An inconvenient truth relative to this administrative funding position is that it compromises the quality of instruction provided to students, and it floods the market with unprepared students believing they have received the underpinning knowledge and skills needed to be successful professionals. Unfortunately, the economy of scale has become more important than the ethics of educational provision.

This gap in educational provision and quality is only one issue affecting who can be considered an exercise professional. Public perception of what is needed to be a coach or fitness professional does not necessarily include a university education. Government perception of what is needed to be a coach or fitness professional does not necessarily include a university education. Further, legal opinion regarding who is a qualified exercise professional does not necessarily include a university education. The only group who consider a university education to be a prerequisite for professionalism is university educators.



***While sport and exercise education is popular in universities around the world, a degree is  
no guarantee of competency inside the gym.***

### Who's on First?

The demand for CrossFit certificates is a telling statement on the state of the exercise-and-fitness education market. Why would someone pay US\$1,000 for a CrossFit course and certificate if they can buy an online certification requiring 15 minutes of preparation to pass an open-book test for \$49? Answer: perception of value and utility.

The brutal truth is that an educational experience in the form of a seminar, or set of seminars, that provides professional, fact-based knowledge and tangible practical skills can be a more efficient means of entry into exercise and fitness professions than a university education. If there is a rigorous and objective assessment of both knowledge and practical skills included that stands up to external scrutiny, it can be even more efficient.

But a professional certification is an endorsement by a professional body that a certificant possesses the minimum set of requisite knowledge and skills for professional practice. And the field of certification, as a whole, not just in sport and fitness, is rife with problems. Just like higher education and having a degree, having a certification or certificate in most instances does not imply ability to do the job at hand: improve customer fitness in the commercial environment.

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**The motive for marketing and offering a bargain-basement \$49 certification is actually more profit-driven than the most expensive certifications because value added and professional competency are not concerns.**

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Certification suffers from some of the same problems as university education, foremost among them being economy. It costs money to deliver information and assess competency in a meaningful way. And do not be fooled by anyone: Certification is a for-profit business. Someone gets paid at the end of the day from the certification fees. It doesn't matter whether it is a certification mill, the American



### *All certificates are not created equal.*

College of Sports Medicine (ACSM), the National Strength and Conditioning Association (NSCA), or any “non-profit” agency in any professional field; financial incentive drives the provision of qualification (however, the term “surplus” is used instead of “profit”). The motive for marketing and offering a bargain-basement \$49 certification is actually more profit-driven than the most expensive certifications because value added and professional competency are not concerns.

Another screwy little perturbation that creates further confusion is that universities actively seek accreditation of their education programs by the certifying agencies that seek to supplant them in the education and provision of professional qualifications to students. Essentially, an institution providing a bachelor's degree signifying that its students are thoroughly educated and trained in their profession seeks validation from an agency that provides education and qualification to those same students without traditional university education.

The problem is worldwide and has become so muddy that in the U.K., universities often provide a bachelor-of-science degree in a sport, exercise or fitness area and use a curriculum designed to satisfy requirements for British Association of Sport of Exercise Sciences (BASES) accreditation-and-certification standards. But BASES standards are linked to a different certification organization's requirements—the Register of Exercise Professionals (REP). The

REP accepts educational experiences of virtually any kind in satisfaction of their standards.

And then it gets weirder: The REP's standards are linked to ACSM standards—but they don't recognize someone who possesses ACSM credentials. And then we twist again, as ACSM standards generally require a university education to sit for certification. And even the ACSM now offers professional fitness certifications to those without university education so the organization will not lose revenues. It is absolutely reminiscent of the classic "Who's on First?" gag by Abbott and Costello or M.C. Escher's mind-twisting "Relativity" stairway lithograph.

### Starting at Square 1

Higher education can reclaim its relevance in creating competent fitness professionals. But it will take the support of educational administration because the changes required will eat into the profit mill that exercise degrees have become. It will take a refit of the educational units delivering the instruction. They will need to consider providing instruction to enable students to reliably produce defined professional outcomes: fitness, health, performance, rehabilitation. They will need to deliver the knowledge to achieve those outcomes by creating an accurate, extensive and objective body of evidence. And quite central to the present shortcomings, they must find a way to impart the defined practical skills to apply acquired knowledge.

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**The CrossFit example of linking assessments to the ability to provide tangible results toward fitness and the opportunity for gainful employment requires broader adoption.**

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It may be that universities need to revisit how they might articulate with employers and certifying agencies to recreate the ages-old apprentice-journeyman-master pathway to expertise.

Certification agencies similarly need to change. The CrossFit example of linking assessments to the ability to

provide tangible results toward fitness and the opportunity for gainful employment requires broader adoption. For exercise-certification agencies to be taken seriously and to contribute to the long-term progress of the exercise professions, a mechanism to marry profit to quality of product has to be created.

CrossFit has been a catalyst for much change in commercial fitness since the early '90s. The grassroots influence of the CrossFit community has moved officially onto university campuses—about a dozen of them—and represents the beginnings of a new stage in the evolution of fitness instruction. This new collaboration between higher education, industry and certifying agency may be prototypical of the future of commercial fitness.

### About the Author

*Professor Lon Kilgore graduated from Lincoln University with a bachelor of science in biology and earned a Ph.D. in anatomy and physiology from Kansas State University. He has competed in weightlifting to the national level since 1972 and coached his first athletes to national-championship event medals in 1974. He has worked in the trenches, as a coach or scientific consultant, with athletes from rank novices to professionals and the Olympic elite, and as a collegiate strength coach. He has been a certifying instructor for U.S.A. Weightlifting for more than a decade and a frequent lecturer at events at the U.S. Olympic Training Center. His illustration, authorship, and co-authorship efforts include the best-selling books "Starting Strength" (first and second editions) and "Practical Programming for Strength Training" (first and second editions), recent releases "Anatomy Without a Scalpel" and "FIT," magazine columns, textbook chapters, and numerous research journal publications. He is presently engaged in the most difficult task of his career: recreating the educational track to becoming a professional fitness practitioner. The second stage of this effort is the creation of a one-year university qualification in fitness practice at the University of the West of Scotland.*

# HANGING UP

A LEGEND IN THE CROSSFIT COMMUNITY, CHRIS SPEALLER BIDS FAREWELL TO CROSSFIT GAMES COMPETITION IN 2014.

ANDRÉA MARIA CECIL EXAMINES THE MAN AND THE MYTH.

# HIS SHOES

BY ANDRÉA MARIA CECIL

It was Oct. 8, 1966, a Saturday. Iowa State University faced the University of Kansas in the Big 8 football conference.

The Cyclones had been having kickoff trouble, and the team was about to unveil its new weapon: a 5-foot-5 man weighing 126 lb. Like his teammates, he wore a regulation helmet, jersey and shoulder pads. But instead of regulation knee-length football pants, which were all too big for him, he wore blue shorts.

“You really couldn’t blame the 22,000 fans for roaring with laughter here Saturday,” read the 1966 article in the Carrol Daily Times Herald. “But hilarity yielded to respect as the 21-year-old sophomore rammed the ball off the side of his foot soccer style in a boot that sailed deep into Jayhawk territory.”

The Cyclones’ new kicker had two more good kickoffs that day, scored a 36-yard field goal and succeeded on his only extra-point attempt. Iowa State had its first victory of the season.

The performance caught the attention of Sports Illustrated:

“Strange things were going on in the Big Eight. Missouri trouncing Kansas State 27-0 was routine, but Iowa State trotted out a scrawny 5-foot-5, 130-pound sandlot soccer player who had kicked his first football only eight days earlier to help it beat Kansas 24-7.”

That kicker was also a Division 1 track-and-field athlete and gymnast. He went on to kick in a few preseason games for the Dallas Cowboys in 1967 and later made the U.S. field-hockey team. His name: Dave Spealler.

If it sounds familiar, it should. Spealler, now 69, is father of CrossFit legend Chris Spealler.

“There was nothing I couldn’t do athletically except for dunk a basketball, and basketball’s dumb anyway,” Dave quipped with a smile.

Leading up to this year’s CrossFit Games South West Regional, the older Spealler expounded upon his experience being a small athlete over a quinoa salad and a beer at Squatters brewpub in Park City, Utah.

Spend some time with Dave and it’s easy to see from where Chris’ mentality comes, though the younger Spealler said he’s a good blend of both of his parents.

“My dad is so confident, if he loses he thinks it’s a fluke,” he said after his final regional training session at his affiliate, CrossFit Park City. His mother, meanwhile, is shy, a thinker.

The younger Spealler—5 foot 5 and 150 lb.—has inspired countless in the global CrossFit community by doing things he shouldn’t be able to do on paper.

“It doesn’t even register that I look so different,” said Spealler, known as “Speal” since his college days of Division 1 wrestling at Loch Haven University in Pennsylvania.

“When I see a guy who’s 190 lb. lift, I think, ‘Dang it, I should be able to lift that.’”

## ONE MORE

This year is Spealler’s final one competing at the CrossFit Games. Unlike 2012, when he made the same announcement, this year it’s definitive.

“I could keep trying and get more banged up,” Spealler started, then added, “I’m ready this year, but the next two years—it’s just not worth it.”

The 35-year-old has been competing as an elite CrossFit athlete for nearly a decade. This will be his seventh Games—a distinction he shares with only Jason Khalipa and Becca Voigt. With the exception of 2013, he’s competed in every edition of the Games. He ran through the hills in Aromas, California—where the Games began—and saw his best finish in 2010, when he placed third behind champion Graham Holmberg and then-rookie Rich Froning.

“When I see a guy who’s  
190 lb. lift, I think, ‘Dang it,  
I should be able to lift that.’”  
—Chris Spealler

“I really want to go back to the Games again, and I think the reason why (is because) I have to make this my last year,” Spealler said three days before the regional. “Part of it is I don’t do it just for fun. CrossFit’s fun, but let’s be real: Training for the Games or training to win the Games isn’t always fun. I don’t care what you say.”

For his own health and that of his family and gym, he will forego elite-level competition after the Games in July 2014.

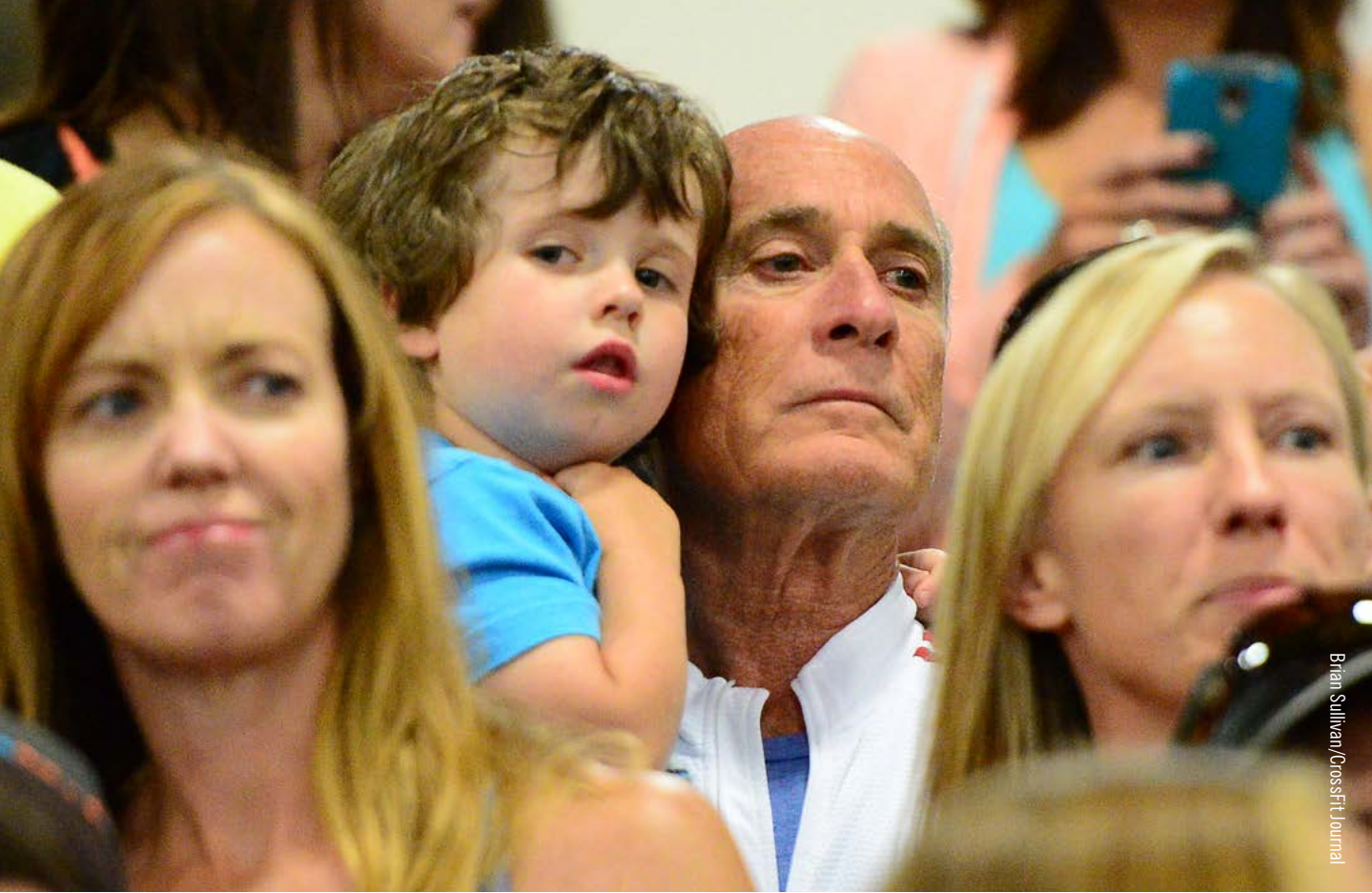
“And, truthfully, it’s selfish at this point . . . Sarah has given up so much,” Spealler said of his wife.

Throughout the years of competition and Chris’ time away from home on the weekends to teach CrossFit Level 1 Seminars, Sarah has remained behind to care for the couple’s two children, 4-year-old Roark and 2-year-old Myla.

Pointing to his oldest, who was racing around the gym on a Razor mini scooter, Spealler continued, “He has one more year before (kindergarten).”

It’s time.

“I don’t want to look back when I’m older and (regret) never hanging up my shoes to give them the spotlight,” he said, watching his children dart around the



Brian Sullivan/CrossFit Journal

Roark and Dave Spealler at the South West Regional.

gym, hang from gymnastics rings and swing from the climbing rope.

When he walks around his house at night, his body creaks, and the fingerprint reader on the family’s gun safe no longer recognizes his dry, peeling thumbs, Sarah said.

When you’re Spealler and you have to lift seemingly impossibly heavy weights just to be able to compete right beside other elite-level men who are roughly 5 inches taller and 50 lb. heavier, it takes its toll on the body, explained Matt Chan, Spealler’s friend who serves with him on CrossFit’s Level 1 Seminar Staff and as an instructor for CrossFit’s Competitor’s Course. Chan has competed at the Games six times.

“Dude is pretty damn beat up,” he said. “That’s not normal.”

Sarah has told her husband, “Babe, I don’t want you to be broken.”

Still, that week before the regional was an emotional one for Chris and Sarah.

“Heading into the weekend, it was bittersweet,” she said after her husband placed second.

Tears were shed.

“Whether I go to the Games or not, it’s the last time I’ll ever get ready for

regionals in this gym,” Spealler had said, sitting on a black weight bench the day before the competition.

He reminisced on CrossFit’s humble beginnings and its explosive growth, and, unprompted, expressed his appreciation for the community that has shown him so much affection over the years.

“What a blessing to be able to inspire a community like that.”

## SPEAL VS. GOLIATH

When the top men’s heat walked onto the competition floor at this year’s South West Regional, the emcee introduced them one by one. It was easy to identify where friends and family were seated—it was the section in the stands cheering the loudest at that moment. But when the emcee spoke the words “Chris Spealler,” the entire venue erupted into borderline-deafening roars.

Such were all three days at the South Towne Exposition Center in Sandy, Utah.

Spealler’s coach, Ben Bergeron, had some insight.

“I heard the commentators during the live feed say it’s because he gives his all during every workout. I disagree with that. I know for a fact that he doesn’t do that. He’s smart. He will save it for the next workout.”



Somehow Spealler got a sled loaded with 385 lb. moving at the CrossFit Games in 2011.

Bergeron continued: “No one’s better at emptying the tank, and if it means breaking bones, (he’ll break bones). It’s when he needs to give everything he has that he does.”

It’s a classic David-and-Goliath tale, just as the Chris Spealler Rogue T-shirt depicts.

“He has to do the impossible every time he competes against 195-lb. men who can handle that weight much easier,” Chan said.

According to physics, many of the movements Spealler performs shouldn’t be possible with his frame, he added.

At the 2011 Games, the final day’s first event required men to push a dog sled loaded with 385 lb. 40 feet across the tennis-stadium floor for 3 rounds at the then-Home Depot Center in Carson, California.

In the warm-up area, Spealler didn’t get to practice with the sled. When he faced it on the competition floor, he pushed it for the first time to no avail.

Finally, he was able to get the stubborn beast to relinquish, but only for a few feet. He tried again, managing a shorter distance. Larger athletes—including Khalipa and Holmberg—seemed to race past him in the first round. Then, suddenly, spectators began to cheer in unison.

“He just folded himself in half to make that happen,” Chan remembered.

With his head low on the sled and the upright push bars just below the outside of his shoulders so he nearly bent himself into the shape of a horseshoe, Spealler coaxed the sled 40 feet. And then again in the second round. And another time in the third. He finished second in his heat—only 4 seconds behind Pat Barber. Khalipa, meanwhile, finished 12 seconds later.

“You look at him and you think, ‘Man, these weights are going to break him,’” Chan said. He added, “It’s just one of those things that you see somebody doing that and you think, ‘I need to step up my game.’”

But Spealler’s struggles resonate beyond elite-level competition. And beyond gender.



During the final event of the 2008 CrossFit Games, Spealler chose “God Will Lift up Your Head” by Jars of Clay to get him through 30 clean and jerks at 155 lb.

The day before the regional, Spealler was coaching at his box. During the 9:30-a.m. class, 32-year-old mom Kara Cordray was bemoaning the workout. It called for 5 rounds of 10 front-rack lunges at 85 lb., 5 front squats and 15 box jumps.

That’s 50 lunges, she noted in near disbelief.

“It’s not 50. It’s only 10. Der—don’t add it up like that,” a facetious Spealler said.

Seconds before the workout began, he had more advice.

“If I was in your class, I would be thinking, ‘Holy crap, I’m going to rip the face off this workout.’”

After it was over, the sarcastic gratitude rolled in.

“Thanks for that, Chris,” said one woman.

“Anytime, anytime,” he quickly replied.

Without finishing his thought, he added, “Get ready because if your butt’s sore now, the next three days.”

Spealler is good at making the workout lighthearted and “pushing each person individually,” said Cordray, who began CrossFit in May 2013.

“He has funny quips that he sticks in, for sure.”

At that point, Cordray had only seen Spealler compete once—at the 2013 South West Regional.

“It was really inspiring,” she said. “His story is the underdog story. That’s really inspiring ... for me—I’ve never had muscle.”

## THE FINAL REGIONAL

Before the regional began, Spealler knew he’d have to climb out of a hole after the opening event; it called for a max squat snatch from the hang. In the previous three weeks, competitors had approached 300 lb. with their lifts.



Spealler saved some energy to lift Myla and Roark during the 2014 South West Regional.

“I really need to focus on what I can do,” he had said three days earlier.

He had already jokingly told his wife, “If I don’t go (to the Games), I’ll cause a ruckus.”

What ended up happening was anything but.

He tied for 28th place in the snatch, lifting 220 lb.—just 5 lb. below the PR snatch he recorded at the 2012 South West Regional. There, he snatched the weight from the floor and barely edged out Matt Hathcock to qualify for his sixth Games. At the 2011 Games, he snatched 205 lb. from the floor. Today, his max snatch is 230 lb.

After that, Spealler placed second in the handstand-walk event and won Nasty Girls V2. At the end of Day 1, he sat in fifth place overall.

“He’s in a better position than I thought he would be. I thought he was gonna just punt the snatch into the stands after Event 1, maybe be in the 30s,” said Pat Sherwood, a longtime friend of Spealler’s, on the “CrossFit Games Update” at CrossFit Inc. headquarters in Santa Cruz, California.

Even Spealler’s dad was surprised.

“I wasn’t expecting that,” Dave said after walking down from the stands at the regional.

“Never count ’im out,” his mother, Jill, replied.

“I hope he makes it back to the Games,” his dad added.

Day 2 promised heavy front squats in Event 4 and legless rope climbs in Event 5, and also 6-foot-1, 210-lb. Tommy Hackenbruck. After leading a team that recorded the first consecutive Affiliate Cup wins at the Games, the 32-year-old had decided to compete as an individual in 2014.

“The front squat will be heavy for Speal, but he’ll work it,” Sherwood offered on the show. “And then the man who has over 100 kipping pull-ups, I’m here to tell ya, does not fear a legless rope climb. So Day 2 looks really good for Chris.”

It was so.

Spealler won Event 4 and tied for third in Event 5, beating Hackenbruck by 3 seconds on the latter event after nearly matching him pull for pull on the 10-round rope-climb event.

At the end of Day 2, Spealler sat in second place overall.

“In case ya hadn’t heard, now ya heard! @CSpealler isn’t here to shake hands and kiss babies. #Spealler,” read Chan’s tweet as he watched the live stream of his home regional from the stands at the Northern California Regional.

At CrossFit HQ, Sherwood and co-host Sean Woodland were impressed.

“His story is the underdog story.  
That’s really inspiring ... for me.”  
—Kara Cordray

“At the beginning of the weekend, we figured that Spealler would have to work his way over a period of time into the top three. We didn’t think the period of time would be two events in one day,” Woodland told Sherwood on the show.

Sherwood replied: “He’s blowing my mind. If there was a shot, I thought maybe it’d be this crazy Day 3 comeback, but sitting in second place going into Day 3—I gotta admit, I never saw it coming.”

When Day 3 arrived, Spealler wowed the crowd as he worked his way through Event 6—unofficially known as “the 50s”—with a Tabata timer strapped around his left arm to ensure he did 20 seconds of work and 10 seconds of rest on the movements sandwiched between rowing. The event called for:

- 50-calorie row
- 50 box jump overs (24 inches)
- 50 deadlifts (180 lb.)
- 50 wall-ball shots (20 lb., 10 feet)
- 50 ring dips
- 50 wall-ball shots (20 lb., 10 feet)
- 50 deadlifts (180 lb.)
- 50 box jump overs (24 inches)
- 50-calorie row

Bergeron hatched the Tabata idea after seeing Spealler perform the event at his affiliate, CrossFit New England. There, Spealler didn’t make it back to the rower. At the regional, he did.

Earlier on Day 3, Dave had made a prediction.

“This won’t be a good event for him,” he said of the 50s.

“The bigger guys” will be better on the rower and the wall balls, Dave said.

And Event 7?

“That’s heavy for him,” he said, referencing the 8 205-lb. overhead squats.

Instead, Spealler took fourth overall in Event 6 and sixth overall in Event 7, besting younger, heavier and taller men. Meanwhile, spectators from CrossFit Park City waved a green banner that read “Cerebral Assassin,” a reference to the Tabata strategy.

One person who certainly wasn’t surprised was Eric O’Connor.

Three days before the regional, Spealler’s lifelong friend predicted Spealler would “start out behind.”

“If he can get (the snatch) in the top 25, that’s actually a good thing because of the way people are now—they’re all just freaks,” said the ever-sarcastic O’Connor, also a CrossFit Park City coach who is a member of the Level 1 Seminar Staff.

Every other event, he said, will either be a top-five finish or a win.

“The last event will be tricky,” he said, referencing the overhead squats that were 55 lb. over Spealler’s body weight.

O’Connor continued, thinking out loud through the regional’s seven events: “Technically, he’s more sound than everyone else. He’ll do well at that. He’ll pace himself well.”

He finally concluded: “I totally expect him to qualify for the Games.”

When all was said and done, Spealler reflected on his second-place performance at a mostly empty exposition center.

“I wanted to do what I was capable of, and that was it,” he said with a relaxed smile.

Regardless of what happens at the Games, he said he was thankful for the opportunity to be able to say goodbye and close this chapter of his life.

“It’s really surreal right now.”

## BIG SIS

Spealler was in third grade when the kid he was wrestling broke his arm—allegedly on purpose—during a match. What happened next surprised even his parents.

Julie, his older sister of two years, bolted out of the stands and onto the mat.

“We had to pull her off,” Dave remembered, laughing.

Fifth-grader Julie was yelling at her brother’s opponent.

“He’s my little brother, so I definitely get protective,” explained Julie Spealler Weldon more recently.

“Ever since then, she can’t watch,” Jill said.

If you see Weldon in the stands at all while her brother is competing, she’s likely to be covering her face as if she were watching a horror movie.

“I have been known to leave the StubHub Center and sit somewhere on the steps and plug my ears,” she said.

Except for this year.

“That’s the first time I’ve watched him compete in a CrossFit workout,” said the 37-year-old mother, herself a two-time regional competitor.

At the Games, she intends to do the same.

“I’m super excited to watch him,” she said.

For her, all the hullabaloo about her kid brother sometimes seems peculiar.

“I’ve seen him in his underwear. We were hitting each other with lamps,” she said, laughing.

And his inspiration of a global community is one she both understands and shrugs off.

“For me, it’s like, well, of course he would do that. That’s what he does. Why are you expecting something different?”

“They love him because of what he embodies, his ability to inspire people and what he represents.”  
—Julie Spealler Weldon

Spealler has been like that since he was a child.

“Ever since he was little, he’s always done what he was not supposed to do,” Weldon explained.

Her brother wrestled up a weight class, sometimes two.

“So I got used to that from him. I mean, it’s amazing. But that’s what my brother does.”

As for this being his last year competing at the Games, Weldon supports her brother’s decision.

“I think it’s a good decision. I think it’s gonna be really hard for him to

... transition,” she said. “I’m really hoping that he can feel satisfied with where he finishes as far as the Games this year.”

And although her brother’s perspective has changed from “I’m going to win. I’m not going to have fun” to enjoying the moment, his performance will be no different.

“He won’t give any less than 110 percent even though his perspective has changed,” Weldon said. “So it’s not like you’ll see a different athlete at the Games. You’ll still see Chris Spealler.”

More importantly, however, she said she wants her brother to realize the real reason why people love him.

“They love him because of what he embodies, his ability to inspire people and what he represents—that’s way more important to me than being able to do 100 pull-ups.”

## THE INSPIRED AND THE ANNOYED

Still, for what some find inspiring, others find comically annoying.

It’s the attitude and the effort that inspire, O’Connor, who wrestled with Spealler in college, said days before the regional.

He quickly added with a sneer: “To me, I expect it from him. For me, I’m not shocked. I just get annoyed by it.”

More recently, Sherwood shared an interaction with Spealler that occurred over text message. Speal was excited to share a 225-lb. thruster done in the middle of a workout.

The 5-foot-8, 190-lb. Sherwood was not amused.

“I’m not even happy for you,” he replied.

But that’s just Speal.

“If you’re 5-5, in your mid-30s, 150 lb. on a heavy day and you legitimately strike a little bit of fear into people like Khalipa or (Scott) Panchik, and they’re like, ‘Oh fuck, Speal’s here,’ that’s pretty cool,” Sherwood said, smiling.

Dave said it more succinctly: “If you think it’s the end, he’s gonna go harder.”

Sherwood first met Spealler in 2007.

“I put him through his Level 1 in Golden, Colorado, at the Highway Patrol Center,” he remembered.

On the first day, the workout at the time was an AMRAP involving thrusters and pull-ups—though it wasn’t Fran. Spealler started with a breakneck

pace. Sherwood and his cohorts had done so many seminars they were jokingly waiting for Spealler to crash and burn.

“Oh, look at this guy going like a bat out of hell and he’s a little guy,” they quipped.

The joke was on them.

“He just kept that fuckin’ ridiculous pace,” Sherwood recalled. “Everyone knew his name at the end of that—that was Chris Spealler.”

Both O’Connor and Sherwood said Spealler is one of the most mentally tough people they’ve ever known.

“He can just push really, really, really hard by himself, at 6 a.m., with no one watching,” Sherwood said. “He can go as hard as people can go at regionals.”

Spealler also has the ability to not only say to himself he’s going to beat his opponent but also to make himself believe he will beat his opponent.

“And it’s really tough to beat somebody who thinks like that,” Sherwood said. “If you falter, he’ll get you.”

In the process, Spealler is maxing his human potential.

“He’s the best-case scenario. He’s operating at what peak performance would be if everything’s firing as it should be,” Sherwood said.

Likewise, his absence from competition will be felt.

“That’ll be a hole that I don’t see anybody else filling,” Sherwood said.

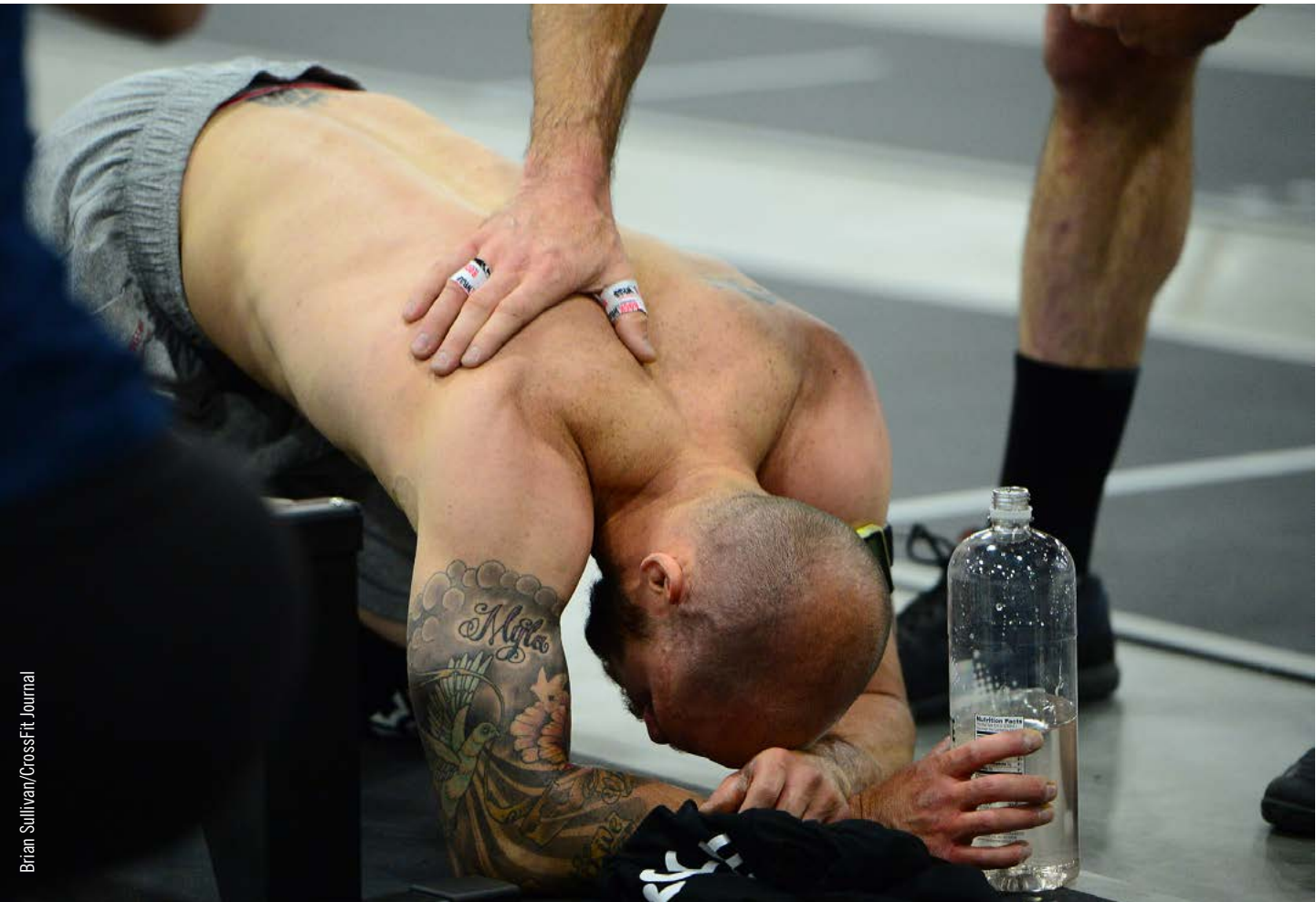
He added: “What that does, I don’t know. He’s definitely not replaceable.”

Spealler will also feel a void.

“I want to do stuff that I shouldn’t be able to do. That’s what I’ll miss the most—more than the experience and everything. I think that’s why people ... connect with me. I really don’t care if you’re 200 or 220. I really don’t care if you’re this or that. I’m gonna try.”

### About the Author

*Andréa Maria Cecil is a CrossFit Journal staff writer and editor.*



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# THE CrossFit JOURNAL

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## Deliver Fitness, Not Diagnosis

Lon Kilgore advises fitness professionals to work only within the scope of practice dictated by their education.

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By Lon Kilgore

July 2014

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All images: Donovan Winters/CrossFit Journal

*Fitness professionals are only equipped to offer expertise on exercise technique and programming. Diagnosis of injuries and other conditions should be left to those with appropriate training.*

A professional fitness practitioner is hired to improve fitness levels in trainees or to help them make progress toward some other goal, such as losing weight, gaining weight, improving some aspect of performance, etc.

The education and experience needed to deliver this service to healthy populations is fairly straightforward, and

it can be acquired in about a year of full-time education and field-based experience, or in about three to five years of carefully selected seminars and gym-based work experience.

What is important is that the professional must be capable of delivering sound, fact-based training to improve physical function while at the same time safeguarding the health of the trainees during their time under supervision.

Note that nowhere in the above description of a professional fitness practitioner is there a requirement to be able to diagnose any disease—bacterial, metabolic, nutritional, orthopedic or otherwise. We need to pay attention to this. At no point in a fitness professional's education does he or she receive adequate training in diagnosis of disease or orthopedic dysfunction/abnormality. This is an important distinction in regard to preparing to run a professional fitness business or providing services therein.

It is informative that some sport and exercise groups that are well trained in disease and injuries relative to sport and exercise—National Athletic Trainers' Association Board of Certification (NATA-BOC) athletic trainers, for example—do not diagnose; they assess and evaluate. Physicians diagnose and prescribe.

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**At no point in a fitness professional's education does he or she receive adequate training in diagnosis of disease or orthopedic dysfunction/abnormality.**

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As it is estimated that as many as 70 percent of all fitness professionals (1,2) do not have any training or education in fitness delivery or teaching, it is innately obvious they will also not have training in diagnosis of any disease, disease process or orthopedic condition, nor in prescription of corrective exercises, therapeutic diets or over-the-counter pharmaceuticals to effectively treat disease. This means, specifically, that fitness professionals working in commercial fitness facilities should not be providing any diagnostic services other than the diagnosis and correction of poor exercise technique and programming.

We often criticize physicians for prescribing functionless exercise programs to their patients and the general



*While few physicians receive a great deal of education on fitness and training, their expertise is critical to managing health conditions.*

public. We base such criticism on the fact that at best they have received a single lecture on exercise during their multiple-year medical education and supervised practical experiences. They really aren't qualified or trained to make exercise prescriptions because they are not familiar with the literature nor experienced in such a practice.

But many of our peers will do exactly what we criticize physicians for doing by making a diagnosis and creating a prescription without any education or training relative to a disease-related topic. Do you know someone with a biology, art, literature, history, philosophy, business, geology, math or even kinesiology degree who diagnoses pathologies in the gym? Do you know someone with no education or training who does the same? Does having access to Google, WebMD or Wikipedia make a competent diagnostician? No. It does make an informed person, but education and supervised experience in the scientific foundations and processes of medical diagnosis are required for competent and reliable diagnostic practice.

Even if a non-trained individual can perform diagnostic and prescriptive skills competently, should he or she? That's an interesting question, as the American College of Sports Medicine (ACSM, once part of the American Association of Health, Physical Education, Recreation and Dance) has adopted and promulgated the mantra

"exercise is medicine" for decades.

Superficially, this seems to indicate it is within the remit of exercise professionals to consider what they do delivery of medical care. However, while the ACSM does offer a US\$25 Exercise Is Medicine certification (along with several other pricey certifications with "clinical" or some pathology in the name), it is clear within the description of the qualification that it is exercise and fitness that are being delivered by the fitness professional and that other differently trained clinical associates are to be responsible for disease diagnosis and management.

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**If fitness professionals make a medical diagnosis and prescribe an intervention to correct a disease or pathology, are they practicing medicine?**

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Caution is required when delivering a gym diagnosis. If fitness professionals make a medical diagnosis and prescribe an intervention to correct a disease or pathology, are they practicing medicine? If the disease or condition persists, have they committed malpractice? If they are diagnosing and prescribing in the manner of a physician, and they are compensated for such, are they committing fraud?

Diagnosis and prescription relative to disease seems to be a tricky area. Luckily for fitness professionals, the definitions and regulations surrounding fitness practice are poorly defined, and regulations, if they exist in the state, region, province or country, are poorly enforced. The idea that "exercise is medicine" is firmly entrenched axiomatically in the psyches of the public and the fitness professional, and the lack of regulation seems to create a sense of empowerment for many of us. That leads us to extend our practices into the realm of providing diagnoses and therapeutic exercise prescriptions.

Technically, if one actually does deliver diagnoses of disease and prescriptions of exercise as medicine and all goes well, no negative consequences will likely arise.



***The phrase "exercise is medicine" can be taken too far by trainers who work outside their education.***

However, if something does go amiss, the concepts surrounding medical malpractice and fraud are well defined and well tested in any court of law. Without adequate training and licensure to do medical diagnosis and clinical prescription, fitness professionals will find courts unlikely to rule in their favor in any case.

It is prudent for fitness professionals to ensure their scope of practice does not intrude into disciplines or professional activities outside those for which they are demonstrably prepared. The best advice is to shape your practice to reflect your expertise and training.

To avoid problems, deal with “healthy” populations and create fitness in clients through intelligent teaching and programming of exercise. Perform pre-participation screenings to identify individuals who may be diseased or have orthopedic problems that may require medical support in areas where you are untrained. And do not be afraid to refer questions and clients to others who are appropriately trained in diagnosing and managing diseases or orthopedic problems.

All fitness professionals should be focused on what their job title implies: making people fit. Adding in activities for which they are not appropriately, adequately or legally prepared dilutes the effectiveness of service to the clients on whom they depend for income.

Delivery of fitness is the crux of our profession and is our most valuable and marketable professional asset. Nowhere is this more evident than in the CrossFit community, where people are beating a path to every new affiliate simply because fitness is delivered. Nothing else is required, and you cannot have a better business model. You get exactly what you pay for.



### About the Author

*Professor Lon Kilgore graduated from Lincoln University with a bachelor of science in biology and earned a Ph.D. in anatomy and physiology from Kansas State University. He has competed in weightlifting to the national level since 1972 and coached his first athletes to national-championship event medals in 1974. He has worked in the trenches, as a coach or scientific consultant, with athletes from rank novices to professionals and the Olympic elite, and as a collegiate strength coach. He has been a certifying instructor for*



**Great trainers know their limitations and seek assistance from other professionals whenever it's needed.**

*USA Weightlifting for more than a decade and a frequent lecturer at events at the U.S. Olympic Training Center. His illustration, authorship, and co-authorship efforts include the best-selling books “Starting Strength” (first and second editions) and “Practical Programming for Strength Training” (first and second editions), recent releases “Anatomy Without a Scalpel” and “FIT,” magazine columns, textbook chapters, and numerous research journal publications. He is presently engaged in the most difficult task of his career: recreating the educational track to becoming a professional fitness practitioner. The second stage of this effort is the creation of a one-year university qualification in fitness practice at the University of the West of Scotland.*

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# THE CrossFit JOURNAL

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## Clearing the Air

Every gym has the occasional body-odor problem. Three CrossFit coaches share their strategies for dealing with a smelly athlete. Emily Beers reports.

By Emily Beers

July 2014

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All Photos: Kim Bellavance

Although it was years ago, Andrew Swartz still gags when he thinks about the stench.

"His body odor was different than anything I'd experienced. It didn't seem to be restricted by the laws of physics as we know them," the longtime CrossFit coach said of a client he used to train.

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1 of 5

Swartz added: “The gag radius was really, really big, but where this guy stood out was that there was a battery-licking quality to his smell. And it seemed his body was impervious to deodorant. He showered regularly, and no matter how much pit stick he put on, it would surrender after about 20 minutes—an hour if he sat perfectly still.”

It seemed there was no solution, and other clients started to complain. The only thing Swartz could think of to do was to take his client outside to work out to avoid disrupting those breathing hard in the gym.

It was an extreme measure, and Swartz knew it, but he didn't know what else to do. There was no policy in place for handling a smelly client at the time.

Although it might sound absurd to adopt an official policy for dealing with clients who might not shower enough or who own just one workout T-shirt, any coach who has had to deal with such a situation understands the need for a carefully thought-out plan for addressing body odor.

### **“You Stink”**

Chris Saini has been coaching CrossFit for eight years.

Like Schwartz, he noticed a member at his gym gave off an offensive odor that actually became disruptive to the class.

“The stench was thick. As in you could smell him 15 yards away,” Saini said.

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**“The stench was thick. As in you could smell him 15 yards away.”**

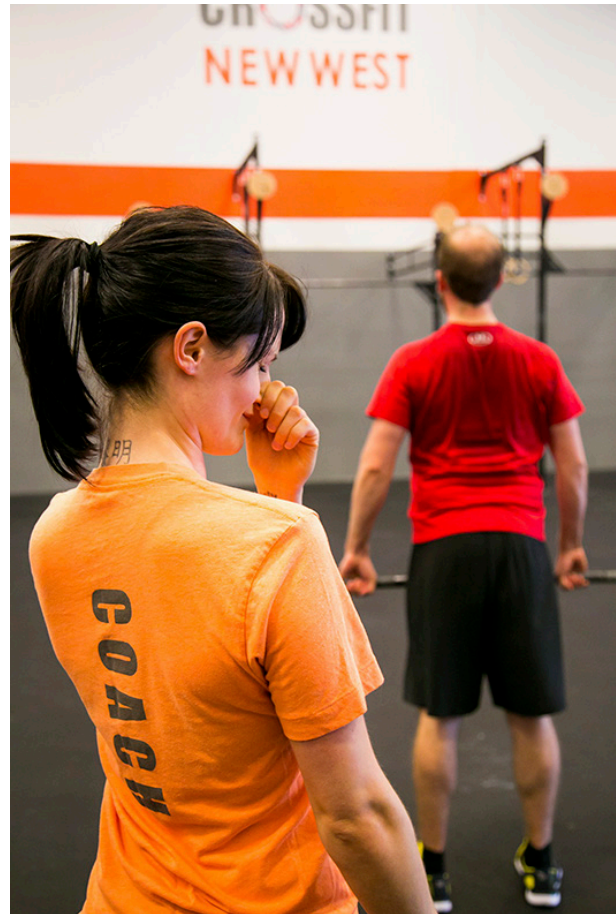
**—Chris Saini**

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Saini let it go for a little while until it occurred to him one day that this guy always wore the same black shorts and red tank top. Day after day after day.

He decided to just come out and say it: “I asked him if he washed his workout clothes since the day before. He said, ‘No.’ And I said, ‘Yeah, no shit,’” Saini said.

“I explained that this is a common space for everyone, and if he wants to wear dirty clothes and sweat and stink at home, that’s his own prerogative. But in here he has to



***Many coaches find it's best to address the problem before other members complain.***

wear clean, fresh workout clothes every day he comes in,” Saini continued.

“Perhaps it could have been handled better, but I couldn’t take it anymore,” he added.

What happened next was the worst-case scenario.

“I never saw him again,” Saini said.

### **Poisoned Lungs in Lynwood**

Jesse Ward is the owner of Lynwood CrossFit in Washington.

He had a similar situation to Saini’s more than a year ago: It became apparent one of his clients—a really good athlete—had a terrible body-odor issue to the point that other coaches didn’t even want to train the guy.

“Dude, I can’t train with him,” Ward said of the feedback he started receiving from his coaches.



***Sometimes a smell can be eliminated with a simple reminder to layer on some deodorant or trash a workout shirt that's past its best-before date.***

"I kind of laughed it off a couple times," he added. Until he no longer could.

"We did a workout on the mezzanine one day. There were 12 people in class, and we were doing a bike workout—a Fight Gone Bad-style rotating AMRAP," Ward began.

"And he was especially stinky that day. He gassed everyone out. I saw this poor guy get off the bike, and there was a legitimate moment of, 'How am I going to do this?' because the smell was so strong," he said.

Ward knew he had to deal with the problem.

He didn't want to approach his athlete at that moment right after the class and embarrass him. But talking to him the moment he walked in the following day still smelling didn't seem right either because it would put his athlete in a position where he'd be uncomfortable staying for class.

So Ward turned to a more mild form of confrontation: email.

"It seemed like a better idea for something that touchy," said Ward, who emailed his client that same day.

"Hey, bro ... I wanted to talk to you about your body odor," Ward started.

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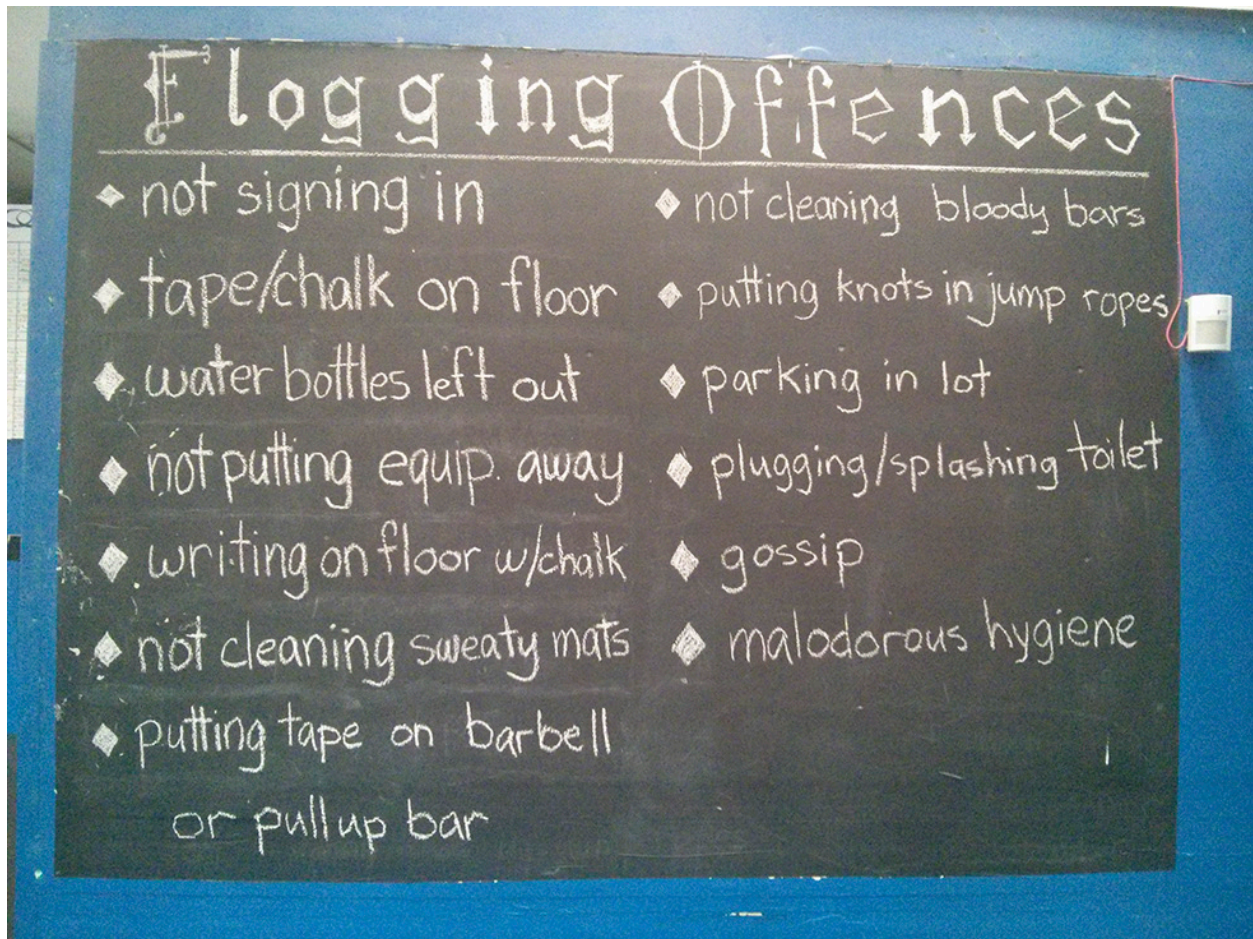
**"Hey, bro ... I wanted to talk to you about your body odor."**

**—Jesse Ward**

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"Are you aware of this?" Ward added, suggesting it could be a medical condition.

Then he signed the email with, "Rock on, Jesse Ward."



*If you make it clear that hygiene is important, it's often easier to address a problem when it appears.*

The result of Ward's email was the best-case scenario. His client replied by thanking Ward for letting him know. He also admitted it was probably his T-shirts, which he had left in his gym bag one too many times, and that he was headed to buy some new gym clothes that evening.

After that, it was water under the bridge.

The smell did turn out to be the T-shirts, and Ward hasn't noticed a bad smell since that day. More than a year since the confrontation, Ward's client still comes to the gym and continues to be a dominant athlete.

Ward said if he had to deal with the problem again, he'd do it the same way, regardless of whether he's dealing with a man or a woman.

"If it was a woman, I'd just say, 'Hey, girl. Just to let you know—the smell—it's pretty bad. Maybe it's a medical

problem.' And then you know, I'd say something like, 'Rock on, Jesse.'"

The key for Ward is not to make a big deal about it, to limit the embarrassment for his athlete.

"It's not an uncommon problem. Every gym as one or two (with body odor)," Ward said.

### **Flogging Offense**

Like Ward, Saini has come up with a solution to body odor that doesn't involve public shaming through the words, "You stink."

Instead, he suggests including bad odor and hygiene in your gym's list of rules.

Many gyms post a list of rules or flogging offenses in plain view for members to see the moment they walk in. The list

often includes things such as, “Don’t cheat the movements or the reps,” or, “Say hi to one new person each day.”

“Add ‘malodorous odor’ to that list,” Saini said.

At the very least, public statement of regulations allows for a more open conversation about hygiene with clients, as sitting down with an athlete for a one-on-one about deodorant can be awkward. If the client is overly sensitive or embarrasses easily, or if the trainer handles the situation badly, the two might not see each other again.

A list also allows coaches to nip the problem in the bud. You can point out the list to new clients to explain the gym’s culture and community, and you can have a chuckle together about the odor clause.

“You can say something like, ‘You’d be surprised how many people we’ve had through these doors that don’t shower or change their workout clothes,’” Saini said.

The idea is that the new client will immediately strive to avoid being one of the stinky ones in class.

And if a stench does persist even after a client has seen the public statement of flogging offenses, Saini said the best thing to do is deal with the problem right away.

“Now I deal with this thing much earlier in my client’s development so I don’t lose patience,” he said.

### Readily Available Deodorant

Swartz, too, has a unique solution to the stink-bomb client.

More recently, Swartz had a personal-training client who seemed secure and confident in himself, so Swartz decided to end the problem before the guy joined his first regular group class.

“It helped a lot,” Swartz said.

It sounds kind of mean to hand someone a stick of deodorant, but Swartz nipped the problem in the bud, and he helped his client avoid being “the stinky one” in class, the one people didn’t want to team up with.

And if you’re not comfortable handing a stick of deodorant to your client, looking him straight in the eye and telling him to slap some on, another option is to provide your bathrooms with spray-on deodorant.

Even if you’re not a regular stinker, we’ve all had a day when we forget to put on deodorant or we come in for a workout straight after work smelling unlike a rose.

And in that moment, some spray-on Secret or Old Spice would ensure a stink-free workout.



### About the Author

*Emily Beers is a **CrossFit Journal** staff writer and editor.*

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**He subtly handed his client a stick of deodorant, told him to stroke his pits a few times.**

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He subtly handed his client a stick of deodorant, told him to stroke his pits a few times, leave the deodorant in the bathroom and come join the class.

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# THE CrossFit JOURNAL

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## The Full Snatch

A closer look at the mechanics and technique of the fastest lift in the world.

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By Zachary Long

July 2014

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All images: Dave Re/CrossFit Journal

The snatch is simply lifting a barbell from the floor to overhead in one quick motion. However, this basic description barely begins to explain the complexity of the lift. The snatch requires a combination of strength, coordination, explosiveness, mobility and stability not seen in any other exercise.

The snatch requires high levels of skill and meticulous practice to perfect its execution, and when an athlete learns to perform the lift properly, it is unparalleled in its ability to build explosive power that translates to athletic performance.

Fortunately for those looking to perfect their snatch technique, researchers have studied the lift extensively, and an examination of the research on the biomechanics of elite Olympic weightlifters can provide insight into the exercise. By reviewing available research, we can determine proper snatch technique and illustrate how it will improve your performance, then explain how one can evaluate technique at home or in the gym.

### Starting Position

A proper starting position is essential to performing a snatch with efficiency. While the starting position varies due to each individual's anatomy, there are several general rules of thumb for the setup.

First, the feet are positioned in a "jumping stance," with the feet about as wide as the hips. This is typically the width of stance an athlete would assume if told to perform a max-effort vertical jump. The bar should be positioned

over the metatarsal bones, and the feet should be pointed forward or rotated out slightly, with individual variances due to the athlete's height, proportions and mobility. A neutral or slightly arched back with chest up and scapulae retracted is important to reduce risk of injury and increase transfer of power from body to bar. The hips will often be higher than the knees, but an athlete's proportions will dictate exact placement, and some athletes are able to assume start positions with the hips even with or lower than the knees. The shoulders should be positioned directly above or slightly in front of the barbell.

A simple test to determine approximate grip width can be performed by having the athlete abduct one arm to 90 degrees while making a fist and measure the distance from the fist to the opposite deltoid. Other methods involve adjusting grip width to place the bar just below the hips when the lifter is standing tall. All methods should take into account an athlete's mobility and comfort.

### The Lift

The research on the snatch breaks the lift up into six phases based primarily on angle of the knee joint. Joint angles of the hips, knees and ankles can be seen in Figure 1.



*Starting the snatch with correct positioning is crucial to proper execution of the lift.*

## Joint Angles

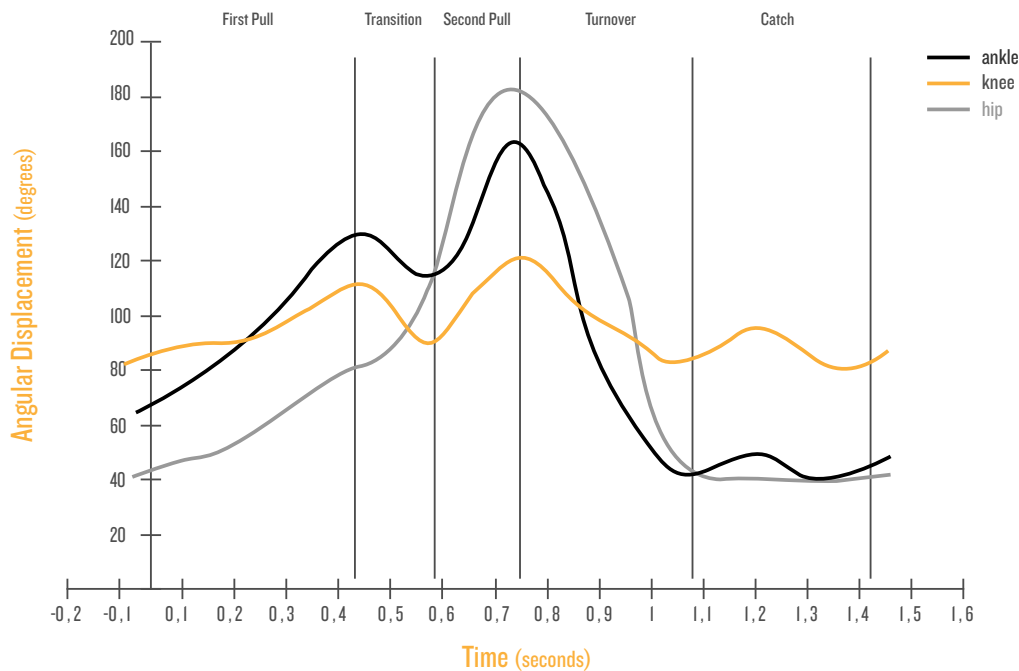


Figure 1: An example of hip, knee and ankle angles during the snatch.

The first pull begins with the barbell at rest on the ground and ends when the knees reach their first maximum extension. During this phase, the knees and hips extend and the ankles plantarflex, but the entire foot remains in contact with the ground. The trunk is also held at a relatively constant angle in relation to the ground. Maintaining this trunk angle is very important for the efficient transfer of force in later phases (2,9).

The transition phase, also known as the “double knee bend,” follows the first pull. During this phase, the knees are flexed and pushed toward the barbell. The knees flex about 20 degrees and this phase ends at maximum knee flexion (2). This bending of the knees allows the body to use elastic energy and the stretch reflexes of the knee extensors to develop explosive muscular power. It also positions the body better for the powerful second pull (9).

The second pull is the most explosive and powerful phase of the snatch. It begins when the knees reach maximum flexion during the transition phase. During the second-pull phase, the hips, knees and ankles are all violently extended.

The plantarflexion of the ankles results in the heels rising off the ground (2). The end position of this phase is known as “triple extension” as the hips, knees and ankles all approach their maximum extension range of motion.

The turnover phase begins at maximum knee extension and ends when the barbell reaches its maximum height. The lifter begins moving the body downward to be positioned underneath the barbell. The feet leave the ground and jump outward to a receiving or squatting stance, often about shoulder width. The feet then re-establish full contact with the ground before the start of the catch phase. The catch is performed by locking the arms and stabilizing the barbell overhead while slowing its downward movement. Following the catch, the lifter rises from the squat position to stand fully erect at the completion of the lift (2,9).

### Shoulder and Elbow Motion During the Snatch

From liftoff until the start of the second pull, the shoulders are extended as the barbell is pulled toward the lifter. During the second pull and turnover, the shoulders are



*The angle of the trunk in relation to the ground should remain relatively constant during the first pull.*

quickly flexed to position the body to support the barbell overhead (14). During this period, a violent shrug of the shoulders and pull with the arms must occur. This allows for continued elevation of the barbell as the lifter jumps under the bar (2). It should be noted that debate exists regarding the effect of the shrug and pull. Some believe the pull to be able to lengthen the barbell's upward path while others believe its purpose is to pull the athlete under the bar (13). The elbows are flexed to approximately 100 degrees as the weight is raised, and then they are straightened completely for the remainder of the lift. During the catch and rise, shoulder mobility is tested as the shoulders are flexed to greater than 180 degrees (7,14).

### Joint Velocities

Knee-extension velocity is significantly greater than velocity of the hips during the first pull, and the hip-extension velocity is greater than knee velocity during the second pull (1). The joint velocities of the hips, knees and ankles are significantly higher during the second pull than they are during the first pull. The faster joint movements during the second pull are the reason the second pull is the most explosive of the phases.

One sometimes-debated aspect of the snatch is the plantarflexion of the ankles during the second pull. While most believe in extending the ankles, some coaches emphasize keeping the foot flat rather than rising onto the toes. They believe rising on the toes increases the distance the athlete must then drop to get under the barbell. Research by Gourgoulis et al. suggests that plantarflexion of the ankles is important as it contributes to 10 percent of the barbell's maximum velocity (9).

### Barbell Vertical Velocity

During the first and second pulls, the barbell has a positive vertical velocity (Figure 2). By the end of the first pull, the barbell should reach approximately 70 percent of its maximum vertical velocity (3). A continuous increase in barbell velocity during the transition phase is indicative of effective technique. A noticeable dip in the velocity is said to be due to ineffective technique possibly caused by fatigue or too fast of a starting movement. During the turnover, the barbell's velocity becomes negative as gravity pulls it downward. It is critical the turnover occurs quickly to minimize this



*At the end of the second pull, the lifter aggressively pulls under the bar—the third pull—and locks it overhead.*

negative velocity so the barbell doesn't have to be lifted further than necessary (2).

### Barbell Trajectory

Several studies and books have been written addressing the trajectory of the barbell at various stages of the lift when looking at the snatch from the side. These studies examined the movement of the barbell in relation to a vertical line drawn up from the barbell's starting position.

During the first pull and the transition phase, the barbell moves away from this vertical line and closer to the lifter. The barbell then moves towards, and sometimes beyond, this vertical reference line during the second pull (12). Researches have not come to a definitive conclusion on how much horizontal displacement of the bar is considered optimal technique (2,12). Regardless of where the bar travels in relationship to this vertical line, it is imperative that the lifter keeps the barbell close to the body throughout the lift.

Examining maximum height and the height of the bar during the catch is one of the easier ways to assess lifting technique. Minimizing the difference between these two variables is important to an efficient lift (1). In elite weightlifters, maximum barbell height during max attempts is around 70 percent of the lifter's height (3,9). The distance the bar drops from its maximum height to the catch has been reported to be approximately 11 percent of the

barbell's maximum height. Larger drop distances indicate inefficient technique because the barbell was lifted higher than needed for the lifter to jump under the barbell to receive it (9).

### Why Snatch?

The complexity of this lift alone is not enough to justify its use in training for athletic performance. Extensive research on the effects of Olympic lifting provides evidence for its ability to improve athletic performance and suggests it has many advantages over other forms of training.

A few studies have examined the similarities between the snatch and vertical jump. In a study comparing forces exerted during the hang snatch and vertical jump, researchers found similar values for both maximum and time-to-maximum force and power. Based on these findings, they concluded Olympic lifting might improve coordination between muscles, power and the ability to rapidly generate force (4). Carlock et al. confirmed these findings by finding that maximum power values during a vertical jump were strongly associated with abilities of elite Olympic-lifting competitors. This provides further evidence for the use of Olympic lifting, as peak power production is crucial for success in explosive movements such as sprinting and jumping (5). Ground-reaction forces during vertical jumps and snatches have also been shown to be similar, further suggesting the snatch's effectiveness in training to improve this variable (8).

## Barbell Velocity

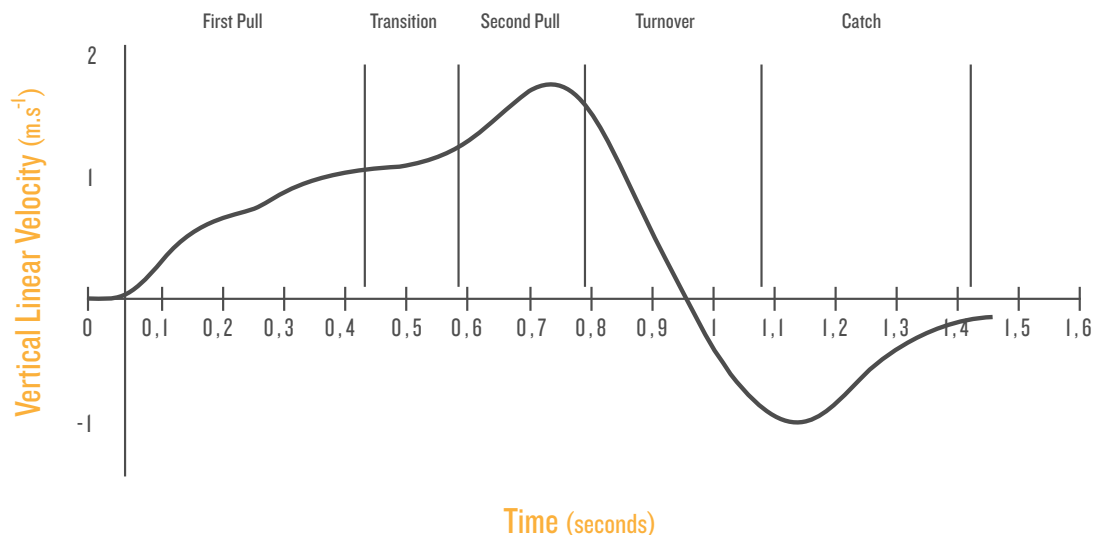


Figure 2: Typical barbell velocity during the snatch.

Studies have compared Olympic-lifting-based exercise routines to powerlifting regimens. In Division III college football players, athletes performing both types of routines saw significant increases in their 1-rep-max squats. Those performing an Olympic-lifting-based routine saw much greater improvements in their vertical jump compared to those who did not perform Olympic lifting (10)..

Research by Channell and Barfield also suggests Olympic lifting may provide some advantage over powerlifting for improving vertical jump (6). Differences in strength and power were compared between national-level competitors in Olympic lifting and powerlifting. Both groups had similar squat strength, but during vertical-jump testing with varying loads, the Olympic lifters had higher peak force, peak velocity, peak power and jump height. The authors concluded Olympic lifting seems to provide an advantage for utilizing high forces at fast speeds because this is required in many athletic maneuvers (11).

### Using This Research to Improve Your Snatch

All of this research means nothing if it does not translate to improved performance at the gym and athletics. While some of the variables that have been discussed would require expensive equipment to examine your own

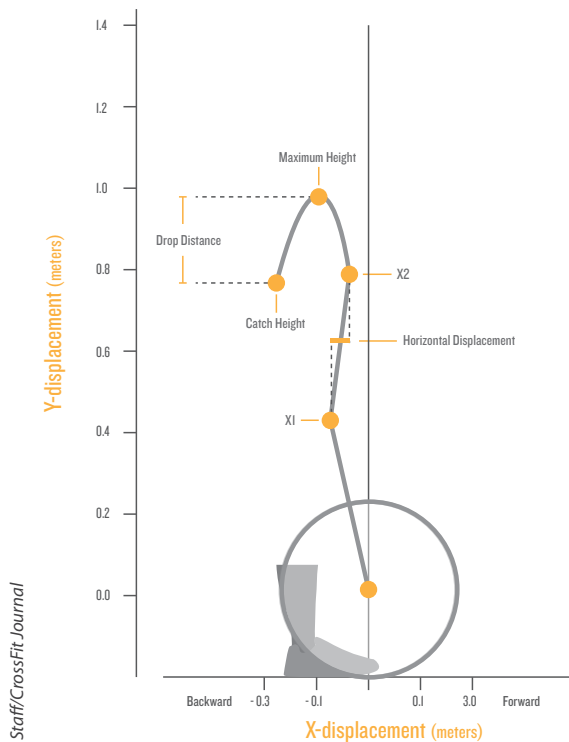
technique, others can easily be assessed using various smartphone, tablet and computer applications.

The place to begin when analyzing your own technique is the starting position. From a side view, examine back positioning, shoulder location in relationship to the barbell, and hip vs. knee height. Common errors in the setup include the shoulders being behind the barbell, starting with the shins against the bar as if performing a deadlift, and hips being set too low relative to the lifter's anatomy. From the front, assess your stance width and foot angle.

During the first pull, watch to see if the angle of the trunk in relation to the ground remains relatively constant and that the spine remains in a neutral position. Oftentimes, lifters will shoot the hips up too fast, raise the torso too high, or round the back. These will lead to inefficiency during the powerful second pull.

During the second pull, watch for plantarflexion of the ankles as you finish the pull to ensure you are not losing barbell velocity. Also ensure the hips and knees are both fully extended and then that the shoulders are aggressively shrugged. Frequently, inexperienced lifters will not reach full hip and knee extension and begin pulling with their arms early, severely limiting the amount of power

## Barbell Trajectory



**Figure 3: Trajectory of the barbell during the snatch.**

they generate. Many times they will also not pull with the elbows high and back, instead allowing their arms and the barbell to drift away from the body.

To assess barbell trajectory, video your snatch from the side and draw a vertical line up from the barbell's starting position. During the first pull and transition phase, the barbell should be pulled toward the lifter and away from the vertical line. This helps keep the barbell properly positioned in relation to the lifter's center of gravity. In the second pull, the barbell will be closer to the line, but despite this forward movement, the barbell should be kept close to the body. Finally, the barbell trajectory should hook at the top of the lift (see Figure 3), which moves the barbell directly over the lifter. This prevents the athlete from having to jump forward to catch the weight, which would frequently result in missed lifts.

Finally, maximum barbell height and the drop distance during the catch phase should be measured if performing the full snatch. If the barbell is lifted too high, then the



**Research has shown Olympic-lifting programs to be effective for improving vertical jumping ability. Note the extension of the hips, knees and ankles at the end of a vertical jump is similar to that seen in the snatch.**

athlete could have lifted a heavier weight and not pulled as high. If the drop distance is excessively great, then the lifter is forced to move the weight further than is needed. Inexperienced Olympic lifters often pull higher than necessary and overemphasize the drop under the bar by squatting to low depths. This results in a crashing of the barbell as the lifter catches it. Instead, focus must be put on quickly moving under the barbell, thus minimizing its downward velocity.

In conclusion, an examination of the snatch technique of elite weightlifters can provide insight into this lift and tips on how to improve your own form. The combination of strength, speed, and coordination required of this lift make it one of the best exercises available for improving athletic performance. The references on Page 10 are a great starting point for any athlete or coach who is looking for greater understanding of this complex lift.





*An athlete's exact proportions will determine the optimal start position.*



*As the bar leaves the floor, the back remains in extension.*



*As the bar passes the knees, the hips start to open and the chest rises more quickly.*



*The knees slide under the bar as the athlete prepares for triple extension.*



*At the end of the second pull, the ankles, knees and hips are extended.*



*A split second after the athlete hits full extension, he or she begins to pull under the bar.*



*Meeting the bar minimizes the distance it drops and helps the athlete increase stability.*



*The athlete stabilizes the bar in the squat before standing to complete the lift.*

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### About the Author:

Zach Long is a physical therapist and strength-and-conditioning coach in Monroe, North Carolina. He attended the University of North Carolina at Chapel Hill, where he majored in exercise and sport science, and East Carolina University, where he received his doctorate in physical therapy. Long's research related to physical therapy and athletic rehabilitation has been presented at multiple state and national conferences. He currently runs [www.activePTblog.com](http://www.activePTblog.com) and trains at [CrossFit MNC](#).

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# THE CrossFit JOURNAL

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## The Arms Race and Olympic Lifting

Bill Starr explains that training your biceps has limited carryover to lifting, but targeting your triceps can result in PR snatches and jerks.

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By Bill Starr

July 2014

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All images: Dave Re/CrossFit Journal

Everyone who ever set out to improve his physique and get stronger started out by working his arms.  
Not his back or legs. Arms.  
Why?

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1 of 7

Upper arms are a symbol of manhood, especially for youngsters, and bulging biceps show that a lot of hard work has been done to achieve such results. Sometimes those impressive upper arms came about from doing hard labor, but in most cases they were products of long hours in the gym doing countless curls in a wide variety of ways: one-arm concentration curls with dumbbells, two-arm dumbbell curls, curls on a preacher bench, hammer curls, and curls with a barbell—plus some additional work on an EZ curl bar and a curling machine, if one was available.

“Curls for the girls” was a phrase all lifters understood and fully believed.

While the other part of the upper arm, the triceps, did not occupy the same high rank of distraction as the lofty biceps, the three-headed muscle had to be worked diligently as well if the athlete wanted to build large upper arms. That’s because the triceps make up two-thirds of the upper arm, so only hammering away at the biceps without spending ample time doing something specific for the triceps just doesn’t get the job done.



*Curls for the girls?*

Yet when anyone is asked to show his arm size, he will, 98 times out of a hundred, hit a double biceps pose.

### **Selling Tickets to the Gun Show**

Obtaining big arms was one of my primary goals when I started lifting weights. Visiting the York Barbell Club Gym and seeing John Grimek, Steve Stanko and Vern Weaver up close heightened my desire for big arms even more. But at the same time, I also wanted to add muscle to all parts of my body and get considerably stronger in order to perform better in sports such as basketball and softball. I, like most beginners, wanted both. I wanted strangers to give me a second look when they saw my upper arms, so in the early stages of my weight training, I spent plenty of time doing exercises for my biceps and triceps.

Then I discovered Olympic lifting, and my priorities changed drastically. From the photos in “Strength and Health” magazines, brought to me by fellow airmen when I was stationed in Iceland, I learned how to press, snatch, and clean and jerk. Not well, of course, but well enough to make me hungry to improve those three competitive



*Heavy pulling movements can have dramatic effects on the biceps and explain the physiques of some lifters who never do curls.*

lifts. My focus shifted from doing bodybuilding exercises to those needed to elevate weight overhead. My workout consisted of lots of squatting, pulling, jerking and overhead pressing. But even then, I kept a dumbbell in my room and did curls religiously three times a week on my non-training days. I thought I needed to do them if I wanted to maintain the size I'd obtained.

When I left Iceland, I was assigned to Sheppard Air Force Base in Wichita Falls, Texas. There, I discovered a YMCA with a fully equipped weight room, and I began competing in Olympic meets. My workouts revolved around the three competitive lifts, with lots of pulling movements and overhead presses, jerks, and, of course, both front and back squats.

At that point, I rarely did any curls, and to my surprise I found my arms still gained in size. I did, however, continue doing specific work for my triceps, and I thought that accounted for the increase in my upper arms. But this wasn't the case at all.

I found out what was really happening with my arms after I enrolled at Southern Methodist University and began training under the guidance of Sid Henry at the

Downtown Y in Dallas. He explained to me the reason my arms had grown was not because of the extra triceps work I was doing but because of all the heavy pulling. He said the power snatches, power cleans, clean- and snatch-grip high pulls, full cleans, full snatches, and heavy shrugs were directly affecting my arm size and making my upper arms a great deal stronger.

Those heavy pulling movements were strengthening the prime movers of my upper arms—the brachioradialis and brachialis—and had a much greater influence on arm strength and size than any form of curling. Sid didn't allow any curling. He said it wasted energy that could be spent on larger groups that helped to lift more weight overhead. In addition, he told me, doing lots of curls can have a negative effect on racking the clean.

I knew this was true because I watched several lifters with unusually big upper arms struggle to rack their cleans in contests. But the best example of this type of problem was Phil Grippaldi, whom I lifted against after I moved to York and became a member of the York Barbell Olympic team. This was in the mid-'60s, and Phil was a rapidly rising star of the sport. He easily won two straight teenage national



***Big arms can create problems in the rack position for the clean, and those with exceptionally large arms often need to add flexibility training to their regimens.***

titles and began breaking teenage world records at every meet he competed in.

He was a great presser and solid snatcher but wasn't that good in the clean and jerks because he had difficulty racking his cleans. The strength was there, without any doubt, but regardless of how high he pulled his cleans, he couldn't rack them. The bar would simply bounce off his big chest because of his humongous upper arms. There was just too much mass in them for him to be able to fix the bar across his shoulders.

His upper arms had to be seen in person to fully appreciate how enormous they were. Fans at local, national and international meets would swarm all over him, wanting to touch those big guns and pestering him to tell them what program he used to obtain arms that size. Few believed him when he said he never did any curls—ever. He just did the Olympic lifts and a great deal of heavy pulling exercises.

While Phil certainly did enjoy the attention he got from possessing those arms, he needed to do something so he could rack his cleans.

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**If you're interested in excelling in the Olympic lifts yet still want to have head-turning upper arms, forget the curls and just work the pulling movements harder.**

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Phil was coached by Butch Toth of the Keasby Eagles weightlifting team in New Jersey and Dr. Fran Corbett, who helped with the nutritional end of training. Together, Butch and Dr. Corbett devised a series of stretching exercises for Phil to do that would allow him to rack his cleans. It didn't happen overnight, but eventually he did gain the flexibility in his upper arms he needed and went on to become one of the greatest lifters in U.S. Olympic-lifting history.

There were many other Olympic lifters in the '50s and '60s who developed amazing upper arms without doing



*Overhead work is responsible for the triceps of many lifters.*

a single curl. Two who always come to mind are Tommy Kono, arguably the greatest American lifter ever, and Bill March, one of the most honored lifters in the early '60s. They built their prize-winning bodies, including their arms, training for the Olympic lifts. Curls were never a part of their programs.

So the bottom line is if you're interested in excelling in the Olympic lifts yet still want to have head-turning upper arms, forget the curls and just work the pulling movements harder. By greatly strengthening those prime movers of the upper arms, you help secure the elbows joints, thus keeping them from getting injured. It's your brachialis and brachioradialis that help you pull the snatches and cleans higher and with much more intensity. The biceps themselves do very little in this regard.

After your career as an Olympic lifter is over and you begin doing a less severe training program, you can insert curling back into your routine if you so choose. In any conditioning program, it is important to do some specific exercise, or exercises, for all the body parts, including the smaller ones, so doing some form of curling is a good idea. But leave them alone when your goal is to become a more proficient Olympic lifter.

### Tri Harder

The triceps are an entirely different story. They can and should be worked directly while training for the Olympic lifts. Large triceps are never a hindrance, always an asset. When the overhead press was dropped from official competition in '72, Olympic lifters, for the most part, stopped doing them. Prior to that, many competitors spent as much as half of their training time pressing, push pressing and working various positions in the power rack doing isotonic-isometric contractions to improve their overhead strength. But with the press gone, the only overhead work being done was jerks.

As a result, triceps strength began to lag behind what it was when the press was a primary exercise. And it still does in most cases. About the only Olympic lifters who still include overhead presses in their routines are those athletes being coached by lifters who competed in the '60s and very early '70s.

What the new wave of lifters and coaches didn't seem to understand was that presses did more than build arm and shoulder strength; they also greatly enhanced strength in the back, hips and legs. In other words, they enhanced supportive strength, which is needed to fix a jerk in place

overhead and hold it there during the recovery until the signal is given to lower the bar. That got lost when the press got thrown out of training.

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**Those massive horseshoe-shaped triceps the top lifters carried around didn't come from any specialized training movements but from doing countless overhead presses.**

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Those massive horseshoe-shaped triceps the top lifters carried around didn't come from any specialized training movements but from doing countless overhead presses. Grippaldi, March, Kono, Ken Patera, Joe Dube, George Ernie Pickett and Bob Bednarski all possessed amazing triceps development, and they were all exceptional pressers.



***Presses and push presses build "supportive strength" that can be used to stabilize and support huge loads in the jerk.***

I have all my Olympic lifters do presses, and I want them to run the numbers up as high as they can. I make it a primary exercise, not an auxiliary movement. I challenge them to press body weight, and this is not nearly as easy as it sounds. It takes a great deal of work to achieve that goal, and when an athlete does, I push him to press 20 lb. more than his body weight. And so on and so forth. The top competitors were able to elevate 1.5 times their body weight, and there were a few exceptional athletes, such as Russ Knipp, who could press double body weight.

That sort of shoulder strength doesn't exist anymore, at least for American lifters. Yet even if you only reach the goal of pressing body weight, the benefits in your supportive strength are going to be evident when you do jerks.

Another overlooked benefit of doing overhead presses is that the strength gained throughout the back, hips and legs carries over nicely to locking out and standing up with a snatch.

Another exercise I have my Olympic lifters do is weighted dips. These work the triceps in an entirely different manner than overhead presses, and that's a good thing. The



***Weighted dips are a great movement to use to increase triceps strength.***

triceps are much more complicated than the biceps, and by working various angles, all three heads can be made stronger. Dips bring quick results, mostly because the groups responsible for doing the movement haven't been involved to any great extent during your training sessions.

You may not be able to use weight right away. Start out doing them unloaded, and when you can do 3 sets of 20, add weight. You can use a dip belt or tuck a dumbbell between your legs. You're going to need a dip belt eventually, so start checking the equipment catalogs as soon as you decide to add weighted dips to your program.

Dips, like overhead presses, are done as a primary exercise. That means using a good amount of weight. Set a goal of 100 lb. plus your body weight, and when you reach that, keep adding more plates. Do dips once a week, and vary your sets and reps at each session: 4 sets of 8, 5 sets of 5, 2 sets of 5 followed by 3 sets of 3. Once a month, go after a personal-record single. Finish each dip workout with a back-off set of as many as you can do with 50 lb. less than you handled that day.

There is one other triceps exercise I like for all strength athletes and particularly for Olympic lifters: straight-arm pullovers. They are done as an ancillary exercise. The reason I include them in my athletes' programs is that they hit the long head of the triceps better than any other exercise. The day after you do the pullovers, you can trace that long head from origin to insertion.

Pullovers can be done with a dumbbell or barbell. A dumbbell is fine in the beginning, but once you start using more than 100 lb., it's best to do them with a bar. Lie on a bench with your head hanging over the end, and have a training mate hand you the barbell. Flex your shoulders within comfortable range of motion. Some will be able to get the hands even with the bench or below it, while others will not. Extend the arms to the starting position. Start light if you are unfamiliar with the exercise. Do your reps, then have your training partner take the weight from you. That's the ideal. In the event you're training alone, simply take the bar off the uprights on a bench, lie back, get into position, knock out your reps and drop the bar to the floor. Or sit up if you're able to do so.

Do 2 sets of 20, and use more weight on the second set than you do for the first. Everyone discovers, to his or her surprise, that the second set is easier than the first. Once a week is enough if you really lean into pullovers. I had a number of athletes who could use 135 lb. for 20, so set your



*The straight-arm pullover is a seldom-seen exercise Bill Starr recommends for Olympic lifters and all strength athletes.*

goal high. Try to keep your arms as straight as possible, but it is OK to bend them ever so slightly at the very end range when the bar is below your head. Do these in a controlled, smooth fashion. No jerking the bar around, as that will irritate your shoulders and elbows.

### Carryover to the Platform

The combination of overhead presses, weighted dips and straight-arm pullovers will greatly improve strength in your triceps. Most importantly, that strength can help you jerk more weight and control snatches. If you also want to add size to your upper arms and do not have a problem with being heavier, these exercises will do the trick. Yet even if you need to control your body weight, presses, dips and pullovers will make your upper arms a great deal stronger.

So my message is this: Don't bother with any specific exercises for your biceps. They are getting all the work they need from the heavy pulling exercises. But do add these three triceps exercises to your program because if you make your triceps considerably stronger, you're going to make your snatches and clean and jerks much heavier.



### About the Author

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