

THE CrossFit JOURNAL

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BORN TO RIDE

BY LAURA BRUNER

Parents use an old invention to fill the gap between training wheels and the freedom of two wheels.

Learning to ride a bike is an important rite of passage for a child, but it can be a challenging process for both the child and the parent.

Children often move from tricycles to bicycles with training wheels and then make the big jump to a bike without training wheels. The distance between the last two stages is great, and many parents approach it with understandable trepidation and hesitation, as many remember the first time a parent's hand left the seat of their bike and they promptly lost their balance and crashed.

Balance bikes—an old concept with a new application—are now making the transition much easier and safer.

The Missing Link?

A balance bike only differs from a standard bike in a few ways. It has two wheels but no pedals, stabilizers or brakes, allowing the child to focus on balance, stability and steering.

Interestingly enough, the first balance bike came before the common bicycle we know today. Originally called the laufmaschine (“running machine”), the balance bike saw its inaugural ride in 1817 with creator German inventor Karl Drais at the handles. The original balance bike, nicknamed the dandy horse, was also known as the draisine or draisienne. Cranks and pedals—the hallmarks of the modern bike—appeared decades later. The 19th-century invention is now making a comeback to bridge the gap between training wheels and standard bike.

On a balance bike, children propel themselves along by pushing off of the ground with their feet. Doing so has a few perks: Children begin to improve their strength and cardiovascular fitness just by pushing themselves along. Additionally, no greasy chains or funky wheels will catch clothing, and repairs and maintenance are minimal with very few moving parts.

Absent training wheels, the bike forces the rider to keep it upright. Because the child's feet can always touch the ground, he or she safely learns to balance, knowing a foot can easily reach the ground to prevent a fall.

Training wheels work to some extent but remove the balance training, making the transition harder. Once the wheels are removed, children have to find balance, but now there's more speed involved and falls can be unpleasant.



A balance bike allows a child to prevent a fall simply by putting a foot on the ground.



Tamaryn Barber's child has been using a balance bike since before the age of 2.

"We tried training wheels, but they were a failure," said Ron Renwick, father of two young girls. "Training wheels created a secondary support that my girls quickly started relying on. They had fun riding with training wheels, but they could not transition to riding without them."

The balance bike takes children out of their comfort zone in the safest manner, allowing them to find their balance on a bike before they have to worry about pedaling. Similarly, the absence of brakes simplifies things further. The child only has to focus on balance and steering. Once those aspects are mastered, pedaling and braking can easily be learned on a standard bike.

Erika Conley, mother of two, explained how easy the transition was for her kids: "The transition to the regular bike with pedals was seamless. I put them each on 12-inch bikes when they had just turned 4, and they were able to pedal and balance with just a little help starting off."

Former CrossFit Games competitor Tamaryn Barber is mother to a young balance-bike rider.

"It gave him the confidence to be on a bike before he was 2 years old," she said.

Though the importance of balance, coordination and strength shouldn't be overlooked, kids also build confidence and self-esteem on balance bikes. Bloody knees and elbows can cause children to fear bikes, and the more gradual learning curve removes frustration from failed attempts to balance on a standard bike.

"Riding a bike takes faith. You need to go fast enough to keep the bike upright when you are afraid to go at any speed, so it takes a lot of faith and creates confidence when it happens," Renwick said.

The confidence and skill earned on the balance bike can then be used in other endeavors.

"My kids are both pretty coordinated now at 6 years old. I never thought about the balance bike contributing to that, but I guess it could be a factor," Conley said. While she rides with her kids

to and from school every day, most of her children's friends still use training wheels—something her little ones never needed.

Balance bikes range in price from about US\$60 to \$150, but Renwick recommends a more practical approach: "Instead of buying an expensive balance bike, I pulled the cranks and bottom bracket off of an inexpensive little kid's bike. When they were ready to move up, I reinstalled the parts and we had a pedal bike."

Safety, fitness and economy aside, perhaps the best part is that the balance bike tires kids out.

"They definitely got worn out after a while. It was a great way to burn off extra energy in the evenings," Conley said.

Sounds like a win-win. ■

About the Author

Laura Bruner works for CrossFit Inc. on the Certifications Team. She's also an educator and has helped in the initiative to bring CrossFit and education together through her interaction with schools, teachers, administrators and affiliates.



With increasing levels of confidence and fitness, children will soon be able to leave parents behind as they move on to standard bicycles.



Mike Warkentin/CrossFit Journal

LOCKING IT DOWN: PART 2

BY LON KILGORE Proponents of regulation fail to recognize the barriers to linking personal training to health care and third-party insurance payments.



When people have limited function due to injury or disease, those in clinical-exercise occupations such as physical therapy, athletic training and exercise physiology return them to normal function.

As detailed in “[Locking It Down](#),” the benefits of legislated licensing for personal training are minimal at best for both the public and personal trainers.

So why would personal trainers want their occupation to become a licensed profession?

Many don't, and many more haven't even considered the issue. The stark reality is personal trainers are not driving the boat. If licensure comes to fruition, it's more likely that credit—or blame—will be assigned to an organization unrelated to personal training. These organizations are not interested in helping personal trainers succeed; they are interested in regulating personal trainers for financial gain related to licensing or training prior to licensing.

The primary example of this craven quest for legislated income is the United States Registry of Exercise Professionals (USREPS, established by the Coalition for the Registry of Exercise Professionals), whose business model requires you to pay for registration to be on its list of personal trainers. To be eligible for the list, you must complete training and certification through a

program accredited by the National Commission for Certifying Agencies. Of course, USREPS member organizations—most notably the American College of Sports Medicine (ACSM) and the National Strength and Conditioning Association (NSCA)—provide that training and certification.

Should such organizations gain oversight of personal training through legislation, the result would be regulation by a government-appointed body that does not represent the vast majority of personal trainers. These organizations are also unfamiliar with the day-to-day realities of working in the fitness industry—clinical exercise and strength and conditioning for sports are not personal training.

How can we say the ACSM and NSCA do not represent personal trainers? It's in their mission statements. Or, rather, it's not in their mission statements:

“The American College of Sports Medicine advances and integrates scientific research to provide educational and practical applications of exercise science and sports medicine,” according to the [ACSM website](#).



Licensing proponents have little connection to personal training and instead link improved health with increased physical activity, which can be as simple as a sedentary individual's deciding to rake the lawn.

“The National Strength and Conditioning Association was founded in 1978 with 76 strength coaches from across the country with the common desire to network, collaborate and unify the profession of strength and conditioning,” according to the [NSCA website](#).

HEALTH-PLOITATION

In their pursuit of legislation mandating licensure, organizations with financial interest in licensing will spend considerable time and money to position themselves as the authoritative body and their members as agents of authority with respect to professional conduct and standards. Because these groups are not involved with personal training, the standards will be those of clinical exercise and detached academia.

These standards will not be sufficiently informed by personal trainers and those invested in the vocational education of personal trainers, and they will not allow the diversity of exercise systems currently in use today to continue operation. In short, imposed standards will create a narrow gate through which all must pass.

Key byproducts of professional licensing: The financial well-being of a group is protected and competition is limited.

Key to the push for licensing is data that correlates increased physical activity—not exercise as delivered by personal trainers—with improved health, defined as the absence of disease or reduction in disease frequency.

Linking licensing to health is a clever tactic. The more closely licensed personal training is tied to health care and medicine, the greater the opportunity for practitioners to charge for their services as part of third-party insurance schemes. Linking trainers to health status improves the chances that the membership of the sponsoring organization can be part of these schemes.

Certain groups are indeed implementing this strategy. According to the [USREPS website](#), the group is working to convince the U.S. Department of Labor to move personal training from the Personal Care and Service Occupations category to Healthcare

| IF CLAIMING IN-PATIENT CARE, PLEASE INDICATE SERVICE DATES | | | | | | | | | | | | | | | | | | | | |
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| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| PROCEDURE/TREATMENT | | | FEE CODE | | | FEE | | | DATE OF SERVICE | | | TIME | | | | | | | | |
| Back squats | | | ? | | | ? | | | 15/07/15 | | | 9 a.m. | | | | | | | | |
| Lunges | | | ? | | | ? | | | 15/07/15 | | | 9 a.m. | | | | | | | | |
| Deadlifts | | | ? | | | ? | | | 15/07/15 | | | 9 a.m. | | | | | | | | |
| Front squats | | | ? | | | ? | | | 15/07/15 | | | 9 a.m. | | | | | | | | |
| Romanian deadlifts | | | ? | | | ? | | | 15/07/15 | | | 9 a.m. | | | | | | | | |
| DIAGNOSIS AND OTHER REMARKS | | | | | | | | | | | | | | | | | | | | |
| Patient's leg strength lacking. Standard strength training recommended. | | | | | | | | | | | | | | | | | | | | |
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| <input type="checkbox"/> AUTOMOBILE ACCIDENT | | | <input checked="" type="checkbox"/> OTHER THIRD PARTY | | | PHYSICIAN'S/PRACTITIONER'S SIGNATURE | | | | | | DATE | | | | | | | | |
| | | | | | | <i>Joe Trainer</i> | | | | | | | | | | | | | | |

Licensure of fitness trainers will provide no guarantee that practitioners will be able to access third-party insurance networks.

Practitioners and Technical Occupations.

"The opportunity to affect change on the job reclassification of our industry comes at a very appropriate time as we actively work to become an integral part of the health care continuum," the USREPS site explains.

Remember that **USREPS' main members** are the ACSM and NSCA.

Attempting to sell personal training as another clinical occupation that uses exercise as a featured therapy will likely start a hotly contested turf war. Existing health and medical professional bodies do not readily accept new kids on the block, and they actively prevent new competitors from unfettered access to the feeding trough that is insurance reimbursement.

These are key byproducts of professional licensing: The financial well-being of a group is protected and competition is limited.

TURF WARS

An example of protectionism can be seen in the lengthy dispute between the American Physical Therapy Association (APTA) and the National Athletic Trainers Association (NATA). The conflict regarding scope of practice began in 1974 and did not end until 2009 through arbitration.

Athletic training originated in the late 19th century as conditioning coaches worked to keep track athletes participating through a variety of methods including rubbing muscles, applying counter-irritants, wrapping body parts and using various home remedies. No education was required to be an athletic trainer; you learned by watching and doing. In the early history of athletic training, the first journal for athletic trainers seemed to define the nature of the occupation at the time with its name: The First Aider.

Athletic trainers have steadily expanded their scope of practice over time to include therapeutic exercise and rehabilitation, intruding heavily into the scope of practice for physical therapists.



It took 35 years of lobbying for athletic therapy to become recognized as an allied health profession.

The APTA took umbrage and sought to exclude athletic trainers from provision of manual therapies, maintaining that this practice was the sole domain of physical therapists.

Such discrimination was odd, as modern physical therapy originated with many of the same influences as athletic training. At the end of the 19th century and in the early 20th century, orthopedic surgeons often recruited women trained in physical education to deliver remedial exercise to patients. At the time, these physical-therapy workers were called "reconstruction aides." The difference between athletic trainers and physical therapists seems to be that one worked with athletes and the other with the sick and injured.

In the early 20th century, the importance of rehabilitating wounded soldiers and those stricken with polio created a developmental divergence between the two occupations. The relevance of physical therapy to national defense and national health led the U.S. Surgeon General to establish the Division of Special Hospitals and Physical Reconstruction in 1918, as well

as a school for physical therapy at Walter Reed Army Hospital. This formalized recognition of the profession and codified the education required for entry. The existence of athletic training as a small and peripheral support occupation for organized sport did little to raise awareness of the occupation or establish a robust preparatory path to practice.

In 1955, the NATA appointed a Committee on Gaining Recognition to change the image of athletic trainers from that of water boys and **ankle tapers** to that of medical or health professionals. In 1959, some athletic-training information was introduced into university physical-education curricula, and athletic training was taught as a minor until the 1980s. In fact, there has long been an **option** that requires generic university instruction and internship hours under a certified athletic trainer for qualification.

In 1969, the Committee on Gaining Recognition changed its name to the Certification Committee, and in 1970 the first certification exam for athletic trainers was offered. As athletic trainers expanded their operations off the field, physical therapists countered in 1974

with the creation of the Sports Physical Therapy Section (SPTS), a division of the APTA.

Thirty-five years of persistent lobbying and expansion of scope of practice by athletic trainers led the [American Medical Association \(AMA\)](#) to recognize athletic training as an allied health profession in 1990. But the path to being able to participate in third-party reimbursement schemes was still incomplete.

The APTA's view of athletic trainers diverged from the AMA's and was published in 1993 in "Athletic Trainer Utilization in Sports Medicine Clinics." In brief, the article said athletic trainers working in clinical environments should be subservient to physical therapists (3). In this scenario, physical therapists would employ athletic trainers in their clinics. Athletic trainers would provide services under the supervision of physical therapists, and physical therapists would receive third-party payments.

After many years of posturing, the NATA in 2008 filed an [anti-trust suit](#) against the APTA in the United States District Court for the Northern District of Texas, Dallas Division, alleging monopolistic behavior. After legal expenditures on both sides, the APTA and NATA in 2009 entered into a [legal agreement](#) about the terminology and scope of practices that define each profession. But many of the issues about practice and who can access what forms of third-party reimbursement remain. The [APTA FAQ](#) about the settlement specifically states, "Athletic trainers are not qualified under Medicare to provide outpatient physical therapy services."

It's important to ask a question: If the APTA and NATA aggressively fought for the rights to deliver exercise for clinical purposes, would they not feel threatened if personal trainers begin claiming their scope of practice includes the use of therapeutic exercise to improve health and treat disease?

The turf war over scope of practice and access to third-party reimbursement for physical-therapy and athletic-training services might seem like much ado about nothing. It is, in fact, a big deal, as reimbursement creates a large and consistent revenue stream.

However, becoming eligible to participate in third-party reimbursement schemes is nuanced and difficult. For any exercise occupation wishing to become eligible, a major hurdle must be cleared:

"Most insurance/managed care contracts are filed with the state declaring whom the company will reimburse for services. A

large number of these organizations list 'licensed health care professionals' as the only reimbursable entities," according to the [NATA](#).

To be part of the insurance combine, it is obvious that being recognized as a licensed health-care profession is required. As such, it was critical for the NATA to receive a meaningful endorsement (from the AMA) that legitimized athletic training as a health profession. In terms of expanded scope of practice, it was also imperative for athletic trainers to be able to operate in medical and health-care environments without infringing on an existing profession (physical therapy).

WHAT THIS MEANS TO THE FITNESS INDUSTRY

The ACSM espouses the mantra "exercise is medicine," which is suggestive that the ACSM—like the NATA before it—is interested in [identifying as a health-care profession](#) and inserting its organization and certified members into the third-party-reimbursement pathway. The NSCA also has a [special-interest group](#) promoting exercise as medicine. Other fitness organizations present similar fronts, and there's even an organization that proposes hospitals deliver "medical fitness" in the form of fitness training.

If licensing of personal training occurs and leads to eligibility for third-party reimbursement, it's evident non-personal-training organizations are already queuing up to reap any benefits.

If licensing of personal training occurs and leads to eligibility for third-party reimbursement, it's evident non-personal-training organizations are already queuing up to reap any benefits.

But in the world of everyday working personal trainers—certified or uncertified—any movement toward licensure and recognition as a medical or health profession will be problematic.

Why? Most insurers have the reimbursable category "physical therapy"—not athletic training or personal training. Athletic trainers have gained limited recognition in delivering some services within the physical-therapy category.



Participation in third-party reimbursement schemes—with their attendant red tape and bureaucracy—would increase the cost of operating a gym.

Mike Markentin/CrossFit Journal

THE HARD TRUTH

Do the public, legislative bodies and, more importantly, insurers believe a personal trainer provides any medical care?

Medicine is generally defined as a substance or preparation used in treating disease or the treatment of disease or injury by non-surgical means. Medicine is intended to be curative. While being fit is definitely associated with lower mortality rates and improved quality of life, it has not been shown to be a curative agent for any disease. A person seeks medical care when he's ill or injured; he doesn't go to the gym hoping for a cure for an infection, a remedy for a broken leg or an answer to any of the [leading causes of death in the U.S.](#)

Exercise can be treated as a prophylactic measure: It maintains the body so it can function properly and resist injury, and it's generally accepted that exercise can slow the onset or progression

of numerous disease processes. This is the most medicine-like fitness can be: a preventive measure but not a cure.

Even if personal training does become a commonly licensed occupation, it is unlikely the public or the body politic will assign medical responsibility to or acknowledge medical competency in personal trainers—unless, like the NATA did for athletic trainers, some organization systematically reorganizes and reinvents personal training by altering the identity, duties and scope of practice to include clinical tasks. As it did with the NATA, such a change would likely take decades of lobbying, although the ACSM and NSCA, through USREPS, hope to accomplish the task by 2018.

Without the unlikely acknowledgement of personal training as a health or medical profession, and without a revision to third-party reimbursement policies, personal trainers will not be eligible for the revenue stream treasured by current exercise



Whether regulated oversight is from a physician, physical therapist, athletic trainer, occupational therapist or nurse, it is unlikely his or her training, experience and scope of practice actually prepare him or her to oversee personal-trainer activities (1,2).

CrossFit aggressively defends the rights of its trainers and coaches to practice, but its work also indirectly helps personal trainers with any credential.

and academic organizations. Licensure is the easy part of the equation, and it will be an empty gesture with heavy costs if it comes to pass.

All too often, personal trainers are led to believe licensure will ensure their work will be billable to insurance companies and annual incomes will rise. But it should be common sense that you cannot bill an insurance company for work with healthy individuals—even under the guise of preventive medicine. At best, only fitness testing might be considered a billable expense for the vast majority of fitness trainees, much like periodic dental check-ups. This possibility might be great for exercise physiologists but not for personal trainers who produce improvements in fitness and quality of life. However, nothing is certain. Currently, the [Affordable Care Act](#) does not list any exercise, fitness or physical-activity services as preventive and reimbursable.

Although personal training is unlikely to be considered a health or medically associated occupation, that does not mean the work of personal trainers cannot or will not be claimable as health or medical service. Physicians, athletic trainers or physical therapists could employ personal trainers, and their services could theoretically be billed within a third-party reimbursement scheme. Physical therapists already employ physical assistants in this manner.

In this scenario, a personal trainer would not be an independent operator. Some form of oversight would be required, whether from a physician, physical therapist or even an athletic trainer. That would be a rather dire step backward from the American Dream for every gym owner and independent personal trainer.

Licensing of personal trainers could easily create this outcome. Just look at the supervisory path in new but currently unenforced legislation in Washington, D.C.: [Omnibus Health Regulation Amendment Act of 2013](#). The law empowers the State Board of Physical Therapy as the regulatory body for personal trainers. So if the law is eventually enforced—it's currently under review due to widespread confusion—a clinically trained profession will oversee a different and non-clinical occupation.

It would be tempting to blame this silly arrangement on uncertainty and fragmentation in the fitness industry or the stereotypical assumption that personal trainers are all meatheads and aerobic dancers, but the situation is a result of definitions and published scope of practice. Personal training has few definitions and a very poorly elaborated scope of practice. Physical therapists, on the other hand, define themselves as follows on the [APTA About Us](#) page:

“Physical therapists are highly-educated, licensed health care professionals who can help patients reduce pain and improve or restore mobility.”

The APTA scope-of-practice description also states:

“In addition, PTs work with individuals to prevent the loss of mobility before it occurs by developing fitness- and wellness-oriented programs for healthier and more active lifestyles.”

This description seems akin to what a personal trainer does, and as such, personal training fits under physical therapy.

Is there a dedicated body of personal trainers that can effectively argue against this hierarchy? To date only CrossFit Inc. has stood up to represent personal trainers. CrossFit aggressively defends the rights of its trainers and coaches to practice, but its work also indirectly helps personal trainers with any credential by ensuring they are not misrepresented and regulated by organizations that have no right to do so.

Still, a regulatory precedent has been set. If licensing legislation proliferates and the D.C. documents are used as a template, personal trainers will be forced into the same position athletic trainers fought to escape for several decades: They'll be fighting for the right to work and supervise themselves. ■

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ABOUT THE AUTHOR

Lon Kilgore graduated from Lincoln University with a B.S. in biology and M.S. in kinesiology from Kansas State University, and he earned a Ph.D. from the Department of Anatomy and Physiology at Kansas State University's College of Veterinary Medicine. He has competed in weightlifting to the national level since 1972 and coached his first athletes from a garage gym to national-championship event medals in 1974. He has also competed in powerlifting, the first CrossFit Total event, wrestling and rowing. He has worked in the trenches, as a coach or scientific consultant, with athletes from rank novices to professionals and the Olympic elite, and as a collegiate strength coach. He was co-developer of the Basic Barbell Training and Exercise Science specialty seminars for CrossFit (mid-2000s). He was a certifying instructor for USA Weightlifting for more than a decade and a frequent lecturer at events at the U.S. Olympic Training Center. He is a decorated military veteran (sergeant, U.S. Army). 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), “Anatomy Without a Scalpel,” “FIT,” and recent release “Deconstructing Yoga,” magazine columns, textbook chapters, and numerous research-journal publications. His professional goal is to provide the best quality, most practical, most accessible and highly affordable educational experiences to fitness professionals through his university work and through his curriculum-development work for universities and for continuing education for the fitness industry. His students have gone on to become highly notable figures in weightlifting, powerlifting, cycling, coaching, fitness and academia.



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FRICITION BURN

BY MIKE WARKENTIN

Relatively cheap and easily available, sleds are a versatile option for CrossFit gyms.

Pulling or pushing a sled is like getting smacked with a baseball bat through a phone book: It hurts like hell but doesn't leave much of a mark.

Long preferred by powerlifters and others for their ability to ramp up workload without creating excessive soreness, sleds might have been considered premium items in the early days of CrossFit, when it was far more difficult to procure equipment. For example, they don't appear in the seminal CrossFit Journal article [“The Garage Gym”](#) by CrossFit Founder and CEO Greg Glassman. Even today, with a wide variety of economical push/pull equipment on the market, sleds aren't as essential as barbells, squat racks or pull-up bars.

But they are tremendously functional and very effective. They're also a lot of fun if you're into staggering around the gym trying to figure out why your lungs are burning and your legs stopped working.

SIMMONS SAYS

Sled work got more attention in the CrossFit community after the CrossFit Journal published [“Tough Sledding at Westside,”](#) filmed in 2009 and 2010 at Westside Barbell in Ohio. Powerlifters—specialists training for maximum strength—have long used sleds to improve general physical preparedness (GPP), and Westside founder Louie Simmons covered them extensively in the General Physical Preparation chapter of [“The Westside Barbell Book of Methods,”](#) published in 2007.

Simmons wrote that he learned about dragging after a friend explained many strong Finnish deadlifters were lumberjacks who spent a lot of time pulling heavy objects to tractors sitting on main trails. Similarly, weightlifting legend Vasily Alekseyev, also mentioned in the chapter, grew up moving logs in Russia, according to the documentary [“Vasily Alekseyev: The Triumph of Strength.”](#)

“Before you can pursue an increase in volume by means of special exercises, you must be in excellent shape. GPP raises your ability to do more work by special means,” Simmons wrote.

Push a very heavy sled for a good distance and you'll feel horrible as you work, but you'll be fine when you bend over to feed the dog the next morning.

As sled pushing and pulling don't have an eccentric component, they don't cause the soreness common to other work. Squat 100 reps at 225 and soreness is almost certain to follow. Push a very heavy sled for a good distance and you'll feel horrible as you work, but you'll be fine when you bend over to feed the dog the next morning.

In the [“Tough Sledding”](#) video, Simmons laid out his general principles of sled work when training for strength, power and increased work capacity:

- The heaviest sled work should fall early in the week (max-effort lifts are performed Mondays and Wednesdays at Westside).
- On heavy days early in the week, 8-10 trips of 60 yards are ideal.
- Loads should be reduced throughout the week, with sets increased to 12-15.
- As an example, Simmons said he might program the following loads for sled sessions during a week of training (the type of surface can dramatically affect loading): four plates, three plates, 1.25 plates, one plate.
- Constant changes are recommended—ankle weights and weighted vests can be added for variety.

In [“The Westside Book of Methods,”](#) Simmons listed 13 types of sled drags, including walking forward, backward and sideways, with variations designed to target both the upper and lower body. The pulling sleds were simply a sheet of metal with a lip and an upright for stacking plates. Many CrossFit gyms have had welders replicate the design, and similar sleds are now commonly available online for less than US\$125.

Other implements can also be used: tripod pushing sleds with high uprights on the back and low handles on the front (often referred to as [“proglers”](#)), uprights attached to runners in a dog-sled set-up, wheelbarrows, tires and even flat or incline benches pushed by creative athletes.

The sled can be used as strength work at very heavy loads or conditioning work at lighter loads, either by itself or in combination with other elements. As an example, various push/pull sleds have shown up in the CrossFit Games over the years, sometimes as a monostructural activity and sometimes partnered with other movements.



Old straps from gymnastics rings can be repurposed for sled drags.

SLAYING THE DRAGGIN’

In 2014, owner Brett Kokoruda posted [“Prowler Workouts”](#) to the CrossFit Coolidge Corner blog. The short article collected five of his favorite sled workouts.

Kokoruda's athletes skid three sleds—two prowlers and a combination sled/wheelbarrow—across 25 yards of turf in his 5,000-square-foot facility in Brookline, Massachusetts. CrossFit

Coolidge Corner is in a developed area that doesn't accommodate outdoor pushing, so he's got room for two lanes of traffic indoors, and he loves using the sleds, particularly when the weather turns on the East Coast.

“When you don't have the running option and the outdoor stuff, it just gives you ... something different from the rower,” he said. “You can get really reliant on the rowers, and so it gives us a chance to do something different.”



Consider friction and load appropriately to get the results you want.



Shared suffering: Larger sleds are perfect for team workouts.

If he had more space and equipment, Kokoruda would use the sleds more often. At present, he generally uses them for team relays in warm-up, as well as for injured athletes or newer athletes who perhaps don't yet have mechanics that will allow intensity with other implements. If a new or deconditioned client isn't ready for power snatches and kettlebells swings, he or she can certainly use a sled to ramp up the intensity.

If a small number of athletes show up for a class, the sleds and the creativity might come out.

"If I have a class where just four people show up, I'll sometimes wipe off what's on the board. I'll say, 'Hey, I've got something better for you,'" Kokoruda said.

He gravitates toward simple workouts that pack a punch.

"The prowler can be so difficult that I found that ... I prefer couplets—occasionally a triplet, but usually a couplet."

He added: "I also like building rest into it, so I prefer intervals."

Kokoruda said he will sometimes offer up a brutal slog like 20 body-weight sled pushes for time, but most of the time he targets intensity rather than plodding death marches.

"With the sled, I want to see max effort for as long as I can get it," he explained.

Kokoruda added: "They're one of my favorite conditioning tools."

Strongmanwod.com, hosted by CrossFit Strongman Trainer Course leader Rob Orlando, has a number of workouts in its [Sleds category](#). Like the offerings at CrossFit Coolidge Corner, Orlando's fare generally involves intervals or a small number of movements in addition to pushing and/or pulling.

The strongman expert will sometimes slip a car or truck pull or push into a workout, and his athletes at CrossFit Hybrid

Athletics in Stamford, Connecticut, will also grind it out on yokes equipped with skids. He's got one prowler that bolsters a fleet of homemade drag sleds. Orlando said it only takes an hour to feed an eye bolt through the treads of an old tire before mounting a two-by-10 with a vertical stacking post across the sidewalls. He'll feed a strap through the eye bolt, then stack some plates on the post to make the next workout a real drag.

Orlando will often program sleds at the beginning of a workout or use them to create a station in a Fight Gone Bad-style session. He's all about intervals—"Usually on the short side: 90 seconds or less," he said.

He'll drop the intervals to about 60 seconds for strongman athletes and increase their weight dramatically.

Friction created by equipment choice and surface make it impossible to prescribe exact loads for athletes outside his gym, so Orlando said he usually programs duration of effort rather

than weight on Strongmanwod.com. He also generally provides a video to show the prescribed speed of the work.

"Depending on what the stimulus is that I'm looking for, I might make it heavy as shit and just say, 'I want this to be 45 seconds of absolute grinding strength work followed by three or four minutes' rest for a couple of rounds.' And that is a completely different stimulus than keeping it on the light side and making people sprint," he said.

"There are very few things that can make you breathe as heavy as pushing a sled at max effort."

—Rob Orlando



Just add prowlers to turn a playground into a test of character and fitness.

In general, he loads lighter and has athletes work at high speed for max-effort intervals in the range of 45 seconds.

“There are very few things that can make you breathe as heavy as pushing a sled at max effort. ... You do a 45-, 75-second max-effort sled push or pull and it is absolutely draining. So from a conditioning standpoint, there’s very few things that can compete with that.”

As a gym owner, Orlando said he looks at return on investment when considering equipment, and he’s found a sled’s versatility to be well worth the expense—which is minimal if you build your own.

“It’s not technical. It doesn’t take a huge amount of coaching to get it just right,” he said of pushing and pulling. “So we infinitely scale it and make it appropriately difficult from the sedentary to the Games athlete. So from an affiliate owner’s perspective, I just think it’s hugely valuable and largely overlooked.”

Perhaps best of all, pushing and pulling are tremendously functional, a fact immediately obvious to anyone who’s pushed a shopping cart through a snowy parking lot or pulled a broken suitcase through an airport. Functional and scalable, sled work is also great for generating power.

“If you look at the sled and how it relates and intersects with CrossFit’s original vision—which is (moving) large loads long distances quickly and constant variety—I think it dovetails perfectly,” Orlando said.

Disagree? Try this workout, courtesy of Orlando:

Character Builder

5 rounds of:

100-foot sled push (loaded to take about 1 minute)

10 back squats at body weight. ■

ABOUT THE AUTHOR

Mike Warkentin is the Managing Editor of the CrossFit Journal and the founder of [CrossFit 204](#).

THE **CrossFit** JOURNAL

SUGAR SCIENCE SOLID

BY ANDRÉA MARIA CECIL

City of San Francisco cites science in asking court to dismiss American Beverage Association lawsuit challenging sugary-beverage ordinances.



On Sept. 8, San Francisco filed a legal response to the American Beverage Association's July 24 lawsuit challenging two city ordinances that target sugary beverages.

The way Jim O'Hara sees it, it's just like the lyrics of that 1960s song: "I fought the law and the law won."

"Big Soda can't fight the science. The science is clear and Big Soda's gonna lose," said the director of health promotion policy at the [Center for Science in the Public Interest](#), a consumer-advocate organization based in Washington, D.C.

That's the position of the City and County of San Francisco, which on Sept. 8 asked the U.S. District Court for the Northern District of California to dismiss the American Beverage Association's [July 24 lawsuit](#) that said two of the city's ordinances should be "struck down": [Ordinance No. 100-15](#) and [Ordinance No. 98-15](#).

Ordinance No. 100-15 requires ads for sugar-sweetened beverages to include health-warning language: "WARNING: Drinking beverages with added sugar(s) contributes to obesity, diabetes, and tooth decay. This is a message from the City and County of San Francisco." The ordinance takes effect June 25, 2016.

Ordinance No. 98-15 prohibits advertising of sugar-sweetened beverages on municipal property. However, the city is not enforcing the ordinance on advisement from the City Attorney's office, according to letters written by Port of San Francisco Executive Director Monique Moyer and City Administrator Naomi M. Kelly. The letters were sent to department heads.

"Recent developments in the law, including a Supreme Court decision issued after the Board of Supervisors adopted this ordinance, led the City Attorney's Office to reevaluate the legal issues raised by the ordinance," both letters read.

The City Attorney's office declined to comment further.

Joining the ABA's [civil action](#) are the California Retailers Association and the California State Outdoor Advertising Association.

In its response to the ABA complaint, San Francisco dismissed the association's statements that sought to link nutrition scientists' often-changing stances on various foods with science that proves the dangers of drinking too many sugar-sweetened beverages.



The Coca-Cola Company is among the dozens of beverage makers the American Beverage Association represents.

Among the city's denials: the ABA's claim that sugar-sweetened beverages include nutrition labels that allow consumers to make informed choices.

"The City denies that the nutritional labeling information provided on beverage labels satisfy the aim of providing consumers with sufficient information to make fully informed beverage choices," the city wrote in its answer to the complaint.

In drafting these ordinances, San Francisco officials relied on scientific data from such institutions as the University of California, San Francisco, noted Jeff Cretan, legislative aide to Scott Wiener—a member of the city's Board of Supervisors and author of the health-warning language—in an email.

"Nothing on the beverage label describes the scientific link between consumption of sugar-sweetened beverages and diseases like type 2 diabetes, which has been proven by scientific research. Like with tobacco warnings, these warnings

will give consumers the information they need to make informed choices about what they consume."

In the legal response, the city also noted that despite nutrition scientists' changing views on such foods as grains, dietary fat, high-cholesterol fare, salt, margarine, pasta, white potatoes, eggs, nuts and iceberg lettuce, none have suggested Americans increase their consumption of sugar-sweetened beverages or changed their longstanding view that significant numbers of Americans over-consume sugar-sweetened beverages.

San Francisco, did, however, make one concession.

"The City admits that nutrition scientists debate how bad added sugar is for most Americans. For example, nutrition scientists debate whether it is bad simply as a source of empty calories with no nutritional value that contributes to poor health, or whether it is uniquely bad."



One of San Francisco's ordinances in question requires a health warning on ads for sugar-sweetened beverages. It goes into effect next year.

The ABA stood by its initial complaint.

"We believe the law is on our side and are eager for the merits of the complaint to be heard by the Court," outside ABA spokeswoman Kelley Kaufman wrote in an email on Sept. 9. "As stated when the complaint was filed, we are challenging the San Francisco ordinances because they are discriminatory, deceptive and unconstitutional."

"The science is clear and Big Soda's gonna lose."

—Jim O'Hara

The ABA et al. claim the ordinances violate the First and 14th Amendments of the U.S. Constitution. The First Amendment guarantees multiple freedoms, including speech, while the 14th Amendment speaks to "equal protection of the laws."

When it comes to the ABA's misleading scientific claims, though, the data is "overwhelming" that sugary beverages increase the risk of obesity, diabetes, fatty liver disease and chronic liver disease, among other metabolic derangements, said Richard Johnson, professor of renal diseases and hypertension at the University of Colorado Denver's Anschutz Medical Campus in Aurora.

Johnson went on to call the clinical evidence "incontrovertible."

"If you drink a super gulp in three minutes, (you are) taking in 60 grams of sugar ... it may be that it's the same as eating 25 apples, but you don't eat 25 apples in three minutes, right?"

So the problem with sugar-sweetened beverages isn't only the amount of sugar, Johnson noted, but the speed of ingestion.

"I understand the defense of 'there are other things in the world that aren't good.' But you've got to start somewhere, and this is the one, by far, that is the worst. ... Frankly, there should be an attempt to eliminate soft drinks. Frankly. They're not doing anybody any good."

Despite Big Soda's seemingly endless resources, O'Hara said his organization believes San Francisco will be victorious against the ABA.

"Big Soda has had a pretty good winning record because they can outspend the community in the magnitude of 10 or 15 to 1," he said, alluding to his organization's Aug. 25 analysis "[Big Soda vs. Public Health](#)," "but it is clear that the science is really reaching the public."

"The public understands that the sugar drinks are related to Type 2 diabetes, are related to obesity, to oral health," O'Hara continued, "and the public understands the link between sugar beverages and public health." ■

About the Author

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



San Francisco officials say the city's ordinance requiring health-warning language on ads for sugary beverages is groundbreaking legislation that will stand up in a court of law.

THE
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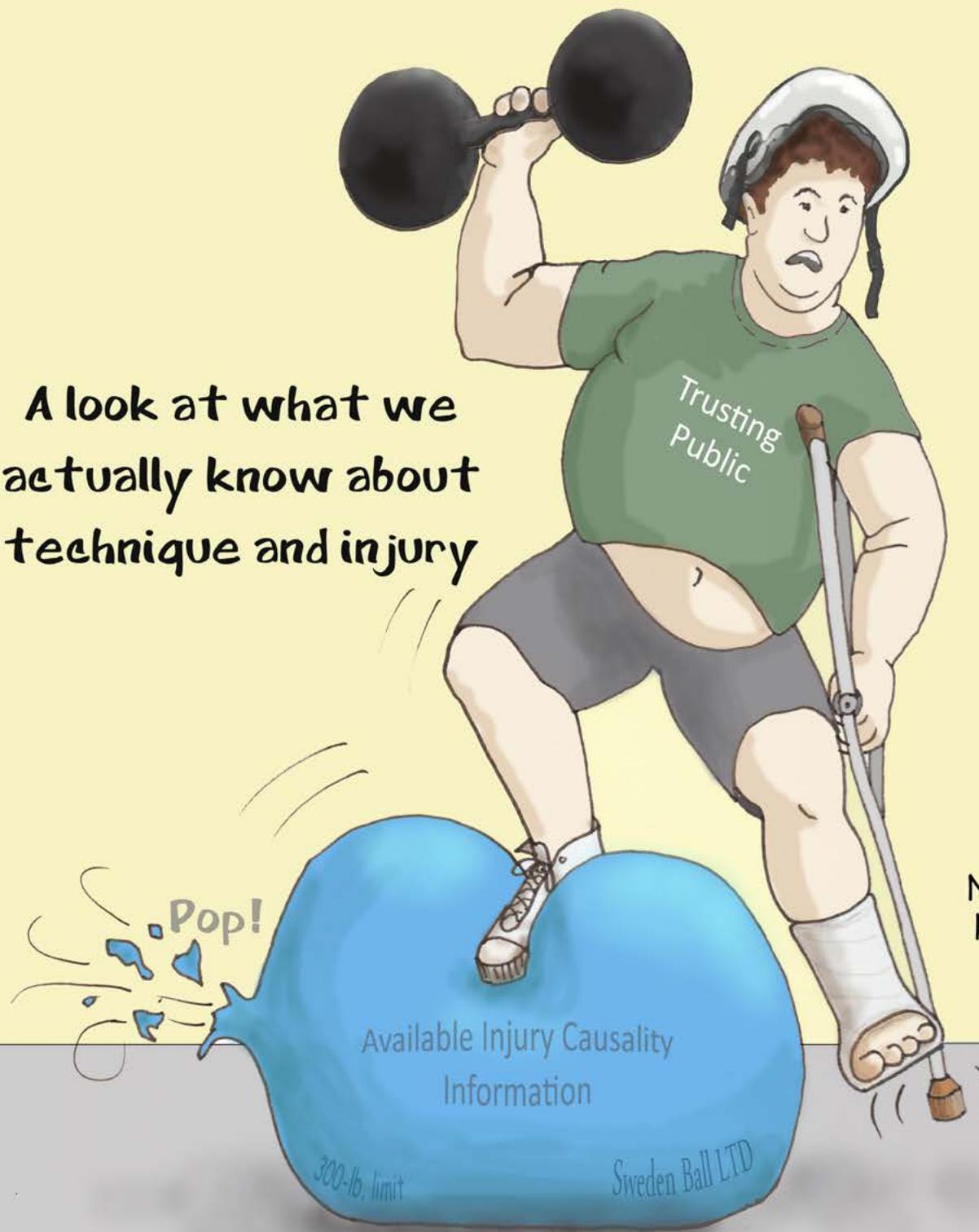
STARTLING IGNORANCE

Arguing about technique variations is pointless without clear definitions and data.

BY LON KILGORE



A look at what we actually know about technique and injury



- Don't look here, look up, that's where you want to go.
- 90-degree knee and no deeper.
- EMG says upper arm only goes to parallel.
- Breathe in going up.
- Any way you can.
- Safety first!
- Now make sure your knees don't go over your toes.



Low Klappke © 2015 CrossFit

Good exercise technique versus bad exercise technique: Everyone seems to have an opinion about what makes a movement acceptable and what makes it unacceptable.

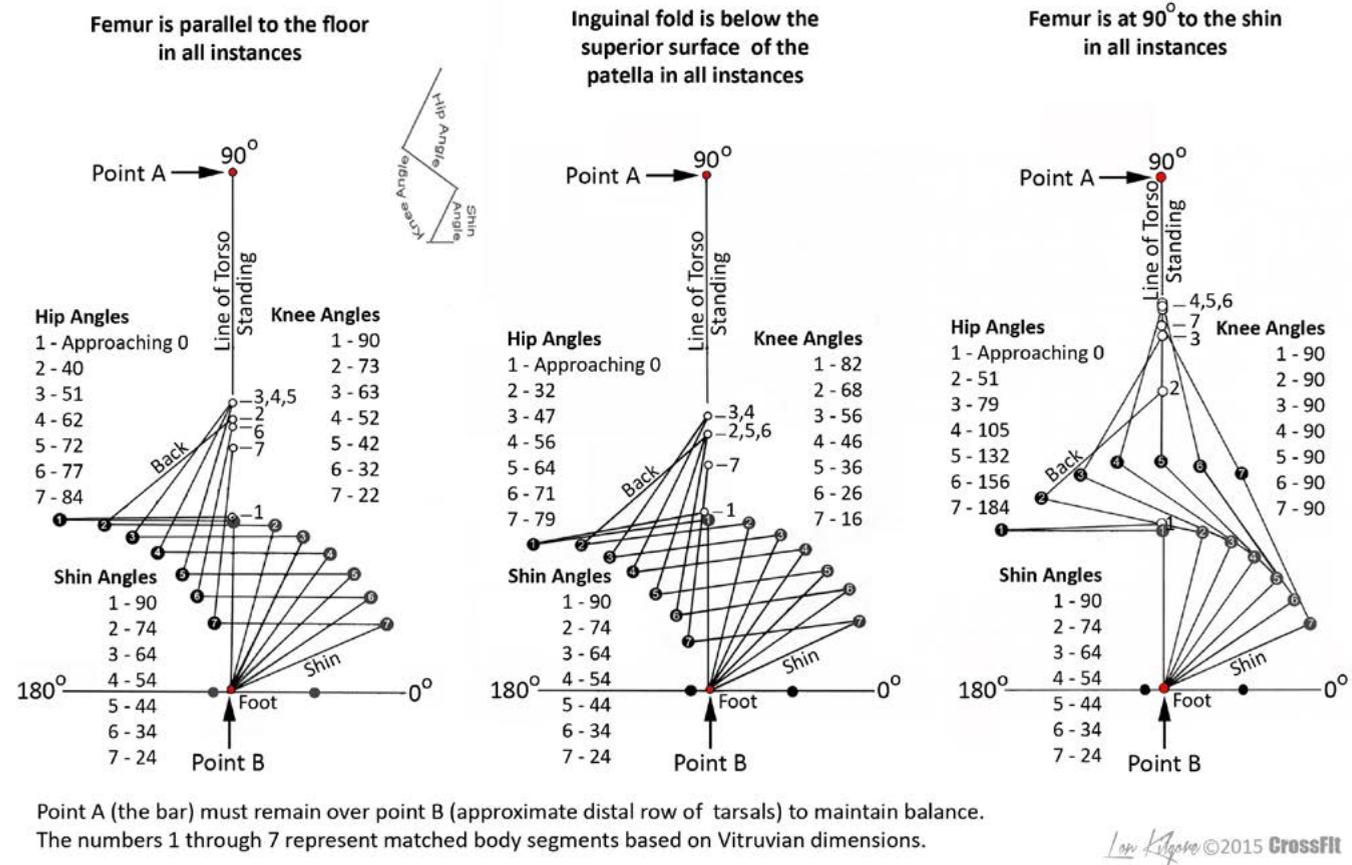
The mantra of every book, article and blog post on exercise injury or gym safety is “bad technique causes injury.” But in the fitness industry, no one agrees on the exact elements of good technique, and despite a lack of agreement, certain groups within the industry will heap criticism upon anyone who does not adhere to their version of good technique. This occurs even if these groups themselves cannot reliably define and describe good technique for any given exercise.

This is not to say technique is not important. It is. When we teach any exercise techniques, we need to ensure:

- The execution of the exercise matches the intent of training: What is to be accomplished and/or developed?
- The movement conforms to basic physics and anatomy: Does the movement conform to laws of motion, and is it within an anatomically achievable range of motion?
- An appropriate training progression has prepared the trainee to successfully perform the exercise in the prescribed volume and intensity.

Among others, organizations such as the American College of Sports Medicine (ACSM), the National Strength and Conditioning Association (NSCA), and the American Council on Exercise (ACE) have been publishing and selling their versions of good exercise technique for many decades. As such, these organizations appear to be established authorities that provide easily accessible information upon which a new trainer can base practice.

But can we actually base the concept of safe technique upon the opinions of such organizations—organizations that present themselves as world leaders?



Possible squat-position variations derived from descriptions and images in the "Journal of Strength & Conditioning Research" (27[1]: 147, 27[1]: 149, 27[3]: 751, 28[4]: 1130) and NSCA publications "Essentials of Strength and Conditioning" (third edition) and "Basics of Strength and Conditioning Manual."

A Lack of Precision and Agreement

If we review publications from fitness groups, most technique descriptions are generally no more than a paragraph or two placed alongside a photo or two. It wasn't until 2005 that people began looking deeper into the issues of technique, after Mark Rippetoe and this author wrote and illustrated a 60-page treatise on squat technique and teaching the squat (7). Unfortunately this deeper consideration did not extend to the academic exercise organizations.

The current version of the NSCA's "Essentials of Strength Training and Conditioning" has but 22 bullet points and a four-image sequence on how an athlete should perform a squat (6). We also know that the NSCA does not have consistent descriptions of exercise technique for the same movement across its instructional publications (see this author's "You Be the Judge" series on The Russells blog).

The ACSM does not include descriptions of weighted exercise technique in its authoritative "ACSM's Guidelines for Exercise Testing and Prescription": The book contains about four pages on the physiology of resistance training and a half page with relevant-to-irrelevant programming and general-methods information (1). The most cogent statement made is that good technique is marked by "complete range of motion."

IT JUST MIGHT BE THAT THE FITNESS INDUSTRY HAS BASED ITS ENTIRE APPROACH TO TECHNIQUE ON THE HISTORICAL EXPERIENCES OF TRAINERS AND COACHES OR POSSIBLY ON UNSUPPORTED CONCEPTS. THE FORMER IS MODERATELY ACCEPTABLE, AND THE LATTER IS COMPLETELY UNACCEPTABLE.



Note the knee position in each squat. Elite athletes employ various techniques with great success and therefore offer no definitive information as to what constitutes "good technique."

In the traditional fitness industry, we really don't have a reliable reference publication that defines and demonstrates good and bad technique, though **CrossFit Training** is working very hard to change that. It just might be that the fitness industry has based its entire approach to technique on the historical experiences of trainers and coaches or possibly on unsupported concepts. The former is moderately acceptable, and the latter is completely unacceptable.

So how is good technique currently identified?

In general, exercise technique is described as good if it is somewhat similar to that of elite-level performers (weightlifters, powerlifters, bodybuilders, runners and so on). But review the techniques of elite athletes at any competition and you will note large variations in movement patterns. Which elite athlete is the true model? This is obviously a flawed approach to defining exercise technique. Similarly, injuries occur in competition more frequently than in training, so the safety aspect of the technique used by elites could be contested.

While the absence of consistent descriptions of good technique is a problem in itself, a much more insidious issue is the use of the ad hominem argument that states bad technique causes injury. Without a foundation based on data and a viable definition of good technique, this argument is nothing more than a weapon to promote one system of exercise over another. If an organization cannot define good technique with experiential, theoretical or experimental data, how can it define bad technique? How can it state that one approach is better than others and that other systems are injurious because of technique variations?

Technique and Injury

So does any evidence show that different versions of the same exercise are injurious due to technique variations? With so many different exercises and names for exercises, it's impossible to answer the question with certainty. But let's take a snapshot



Note that the lifter's right thumb is not wrapped around the bar. What, if anything, does that tell us about appropriate lifting technique?

look at the current state of affairs by considering a stalwart of exercise training that also serves as a classic example of how fear mongering changes exercise technique: the sit-up.

The sit-up has received “authoritative” attention from a variety of academic and professional exercise organizations that say they teach or present safe and effective instruction in exercise technique. But does a convincing body of evidence tell us how to perform and teach this exercise? And does a body of evidence prove injuries will occur if trainees do not use a certain technique?

(Author's note: the article from here forward will undoubtedly ruffle some feathers as it only includes a few citations. The intent of this paper is to demonstrate current conditions to open

discussion, not to provide a comprehensive and exhaustive review of all literature.)

In the 1960s, we performed straight-legged sit-ups in school fitness tests, but then an opinion arose that straight-legged sit-ups would cause injury to the lumbar vertebrae, and we started doing bent-knee sit-ups. Then a newer opinion evolved and suggested sitting all the way up with the hands behind the head would cause injury to the cervical vertebrae, so we crossed our hands in front of our chests and started doing sit-ups with incomplete range of motion, also known as crunches.

Interestingly, no reports of injuries caused by sit-ups can be found at any stage of technique evolution. The four individual reports of injury from sit-ups listed on PubMed, the search

tool for the National Library of Medicine, were published in 2006 and 2009 and involved modern techniques. It's tempting to clap the hands and say the new sit-up techniques cause injury, but we can't: In these cases, sit-ups were a secondary condition to injury (2,3,8). This means a pre-existing condition was present, and sit-ups cannot be considered the sole cause.

In one case study, any abdominal contraction could have aggravated the teratoma present, and if the cyst was not present, then there would have been no injury from sit-ups (2). In the second case study, at the conclusion of wrestling practice a teen did 2 sets of 50 sit-ups and then reported the injury. The injurious agent cannot be determined: some part of the wrestling practice, the practice and sit-ups combined or the sit-ups alone (3). The authors of this latter 2006 paper stated in their introduction, “There are no reports of cervical spine ligamentous or spinal cord injuries (SCI) occurring during ‘sit-ups.’” The final two cases indicated the Valsalva maneuver as a cause of neurologic symptoms after doing sit-ups. In one of these cases, magnetic-resonance-imaging (MRI) evaluation demonstrated a cerebral-artery blockage as another injury agent (8).

Without a large collection of documented injuries, why did we change sit-up technique?

The only reason any form of sit-up is considered injurious is because biomechanical forces on the vertebral column increase when you do sit-ups, not because of a known and demonstrated mechanism of injury in living humans. Remember that previous authors have stated ligamentous and spinal-cord injuries from sit-ups have not been documented in the literature (3).

THE ONLY REASON ANY FORM OF SIT-UP IS CONSIDERED INJURIOUS IS BECAUSE BIOMECHANICAL FORCES ON THE VERTEBRAL COLUMN INCREASE WHEN YOU DO SIT-UPS, NOT BECAUSE OF A KNOWN AND DEMONSTRATED MECHANISM OF INJURY IN LIVING HUMANS.

Often with variability that depends on personal, institutional or organizational bias, researchers liberally interpret biomechanical data as indicative of injury risk: increased electromyograph activity, compression, shearing force and torsion at single or multiple vertebral joints or at the hip in cadaver specimens or computer, animal, or human models.

Such papers are very common, and their conclusions on technique generalize data to exercising humans and predict injury in conditions where none have been reported. These empty conclusions affect us in the gym because academic and professional organizations, manufacturers, and even bloggers seize upon the data to promote their methods, their products or themselves. If an opinion is stated often enough and loudly enough, it is often considered fact.

For example, we are often told with an air of certainty that sit-ups or repeated sit-ups will cause degeneration due to compression of the anterior discs. (This argument also pops up in discussions about the squat). However, in an MRI study of middle-aged workers “disc degeneration was not related to body height, overweight, smoking, or the frequency of physical exercise” (4).

If exercise is not related to disc degeneration, and without a wealth of injury data, can we really point an accusatory finger at the sit-up? Some will say we can, but the merit of the current arguments against sit-ups does not outweigh the fitness and functional benefits of the movement.

“No biologically significant differences were found between bent knee and straight leg sit-up techniques,” Stuart McGill wrote in a study published in *Clinical Biomechanics*. Yet McGill questioned whether using either movement in an exercise program was appropriate due to possible injury risk.

Function or Fear?

Without a documented history of injuries to guide us, should we avoid programming exercises while acting for the benefit of our trainees and their readiness to resist similar stresses in daily life?

Any time we exercise or move in general, basic physics dictate that biomechanical forces within and applied to the body increase. The body is built to adapt and improve resistance to disease and injurious forces. Should we seek to eliminate these forces from our training and lives or progressively train to enable easy tolerance of those forces?

No one has established causality between exercise technique and injury. While relying on data, we cannot say one exercise technique is better than another. But this is not an open invitation to a Wild West application of wantonly irresponsible exercises and techniques. To the contrary, it

is a call to action to systematically and objectively create definitions and descriptions of techniques. CrossFit has openly published its definitions of technique—both written and visual—for all to review and discuss. The evolution of these descriptions continues as trainers and trainees provide feedback and performances are evaluated.

Letting someone else—in this case CrossFit—do the heavy lifting of improving practice is not the final solution; it is a step.

We—you and I—need to ask appropriate questions that will help us in practice, we need to design relevant studies that answer the appropriate questions, and we need to disseminate the resulting information to everyone involved in fitness.

These inquiries do not have to be elaborate, as simplicity makes for good science. They can take place in your gym. You know your business, and you know your trainees. You can ask questions relevant to your practice better than anyone. Keep records, objectively analyze them, share your findings with others, collaborate with local universities and above all do not be afraid to question anything that is taken for granted as fact in the fitness industry. ■

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AUTHOR BIO

Lon Kilgore earned a Ph.D. from the Department of Anatomy and Physiology at Kansas State University's College of Veterinary Medicine. He has competed in weightlifting to the national level since 1972 and coached his first athletes from a garage gym to national-championship event medals in 1974. He has also competed in powerlifting, the first CrossFit Total event, wrestling, and rowing. He has worked in the trenches, as a coach or scientific consultant, with athletes from rank novices to professionals and the Olympic elite, as a collegiate strength coach, and as a consultant to fitness businesses. He was co-developer of the Basic Barbell Training and Exercise Science specialty seminars for CrossFit (mid-2000s). He is a qualified National Coach and was a certifying instructor for USA Weightlifting for more than a decade and a frequent lecturer at events at the U.S. Olympic Training Center. He is a decorated military veteran (sergeant, U.S. Army). 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), "Anatomy Without a Scalpel," "FIT," "Deconstructing Yoga," magazine columns, textbook chapters, and numerous research-journal publications. His professional goal is to provide the best quality, most practical, most accessible and highly affordable educational experiences to fitness professionals through his university work and through his curriculum-development work for universities and for continuing education for the fitness industry. His students have gone on to become highly notable figures in weightlifting, powerlifting, cycling, sport coaching, fitness, and academia.



By directing uninformed arguments and accusations against CrossFit coaches without providing any objective and measurable evidence, detractors demonstrate their willingness to throw rocks inside their own glass houses.

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SUGAR AND DIABETES: MYTHS AND MISLEADINGS

BY BRITTNEY SALINE

Type 2 diabetes has become a global epidemic. Despite growing evidence implicating sugar as its cause, Big Soda and industry-funded science continue to point the finger at the scale.



Doctors diagnosed Sean Buchan with Type 2 diabetes in May 2014. That's when the nurse and retired U.S. Army specialist started changing his diet.

The ice cubes clinking against the glass. The bright beads of condensation promising relief from the Ohio humidity; the refreshing zing. Sean Buchan loved sweet tea.

“The sweeter, the better,” the 40-year-old said.

He was open to alternatives. Mountain Dew or root beer—four to five cans each day—hit the spot just as well.

“I figured my options were to drink that or drink water, and I’m not much of a water drinker,” Buchan said.

That changed May 28, 2014, the day Buchan, a nurse and retired U.S. Army specialist, was diagnosed with Type 2 diabetes. Lab results from an unrelated **hemoglobin A1C test** revealed 9.2 percent, which indicated Buchan’s blood sugar had been inappropriately elevated over recent months. Normal levels are within 4.5 to 6 percent, **according to the Mayo Clinic** in Minnesota. Buchan’s doctor prescribed daily doses of metformin, saxagliptin and glipizide—medications designed to decrease the amount of glucose the body absorbs from food and increase the body’s production of and response to insulin.

For Buchan—who weighed 262 lb. at 5 feet 11 inches and hadn’t regularly exercised since his Army days in 2005—the diagnosis was a wake-up call. As a nurse, he administered care for diabetics fighting blindness, amputation and death each day, but he never gave his sugar habit a second thought.

“I had the mentality of, ‘It could never happen to me.’”

Buchan added: “It was kind of my coming-to-Jesus moment. When I got home, I said to my wife, ‘I have got to change the way I eat.’”

Sweet Scourge

Diabetes is a disease in which blood glucose levels become elevated as a result of the body’s inability to produce or respond to insulin, a hormone necessary for the regulation of sugar in the bloodstream. The disease appears in two primary forms: Type 1 and Type 2. **Type 1 diabetes** is an incurable autoimmune disease in which the body’s immune system attacks insulin-producing cells in the pancreas, resulting in little or no production of insulin. Usually diagnosed during adolescence, Type 1 diabetes is regarded as genetic.



Dr. Robert Lustig, author of "Fat Chance: Beating the Odds Against Sugar, Processed Food, Obesity and Disease."

“Sugar is more dangerous than its calories. Sugar is a toxin.

Plain and simple.”

—Dr. Robert Lustig

The problem isn't the United States' alone, however. In 2014, United Nations (U.N.) member states pledged to “intensify efforts towards a world free of the avoidable burden of non-communicable diseases, which claims the lives of 36 million people each year” in response to what it calls a “global epidemic of non-communicable diseases” including cardiovascular diseases, cancers, chronic respiratory diseases and diabetes.

Costs related to these diseases will surpass \$7 trillion between 2011 and 2025 in low and middle-income countries alone, according to the U.N.

Unlike Type 1 diabetes, Type 2 is considered to be the result of both genetic and lifestyle factors. The question, then, is what kind of lifestyle factors are to blame?

Because the rise of Type 2 diabetes has historically appeared in concert with the rise of obesity, the two conditions are nearly inextricably linked in popular science and industry vernacular. More than 1.9 billion adults worldwide were overweight in 2014, 600 million of whom were obese, the World Health Organization reported.

But the math doesn't add up anymore.

In a groundbreaking 2013 study titled “The Relationship of Sugar to Population-Level Diabetes Prevalence: An Econometric Analysis of Repeated Cross-Sectional Data,” Lustig—along with scientists from Stanford University; the University of California, Berkeley; and the University of California, San Francisco—reported that “at a population level, however, obesity does not fully explain variations and trends in diabetes prevalence rates observed in many countries ... several countries with high diabetes prevalence rates have low obesity rates, and vice versa.”

Type 2 diabetes occurs when the body becomes resistant to the effects of insulin or doesn't produce enough. Both Type 1 and Type 2 diabetes have been linked to complications that include heart disease, stroke, blindness, kidney failure, nonalcoholic fatty liver disease and amputation.

Of the 21 million people diagnosed with diabetes in the U.S. in 2012, Type 1 accounts for 5 percent, according to the U.S. Centers for Disease Control and Prevention. Type 2 makes up the majority, at 90-95 percent.

If the tales of the living don't convince, perhaps those of the dead will.

“Over 40 percent of death certificates now list diabetes as the cause of death, up from 13 percent twenty years ago,” wrote Dr. Robert Lustig, professor of pediatrics at the University of California, San Francisco and physician at UCSF Benioff Children's Hospital, in “Fat Chance: Beating the Odds Against Sugar, Processed Food, Obesity and Disease.”

In “Fat Chance,” Lustig wrote, “Being thin is not a safeguard against metabolic disease or early death. Up to 40 percent of normal-weight individuals harbor insulin resistance—a sign of chronic metabolic disease—which will likely shorten their life expectancy.”

The statistics came as no surprise to Dr. David Cavan, director of policy and programs for the International Diabetes Foundation (IDF) and former consultant physician at the Bournemouth Diabetes and Endocrine Centre in the U.K. The IDF, which represents more than 230 diabetes associations in 170 countries and territories, reports 75 million people living with diabetes in southeast Asia and 37 million in middle-east and north Africa.

“In the Western world, the increase in Type 2 diabetes does correlate very well with the big increase in obesity that has occurred,” Cavan said. “But if we go to some places in Asia, or in the Far East, or in Africa, a large number of the cases of Type 2 diabetes are occurring in people who are either not overweight or they are not significantly overweight, so we have to find an explanation that is not just calories.”

The culprit? Sugar, Lustig said.

“Sugar is more dangerous than its calories,” Lustig wrote in his book. “Sugar is a toxin. Plain and simple.”

Framing Fat

You don't have to be overweight to be fat.

“There is now very good evidence that accumulation of fat in the liver is one of the steps that leads to the progression of Type 2 diabetes,” Cavan said, “and we know that excessive sugar intake, through stimulating excess insulin production, can directly drive an increasing storage of fat in the liver.”

He continued: “There's this notion of ‘thin on the outside, fat on the inside,’ which describes people who are of relatively normal weight, but who are carrying excess fat in their abdomen, particularly in their liver, that can be a result of their diets and can directly increase risk of Type 2 diabetes.”

Humans now consume double the sugar we did 50 years ago, the IDF reported in its “Framework for Action on Sugar.” And the sugar boom isn't contained to the developed world.

“In rural areas, physical activity may be higher, but what we're seeing is that fast foods, high-sugar foods are now available very widely,” Cavan said.

In 2010, China had a diabetes prevalence rate of 11.6 percent. An estimated 113.9 million Chinese adults had either Type 1 or Type 2 diabetes while a whopping 493.4 million—more than the entire U.S. population—might have had prediabetes.

Still, only 38.5 percent of China's population was considered to be overweight, compared with 62.6 percent of Americans in the same year.

Even in low-income developing countries, it is often easier to pop open a Coke than fill a water jug.

“There are some parts of the world where drinking Coca-Cola is safer and cheaper than drinking water,” Cavan said. “You have this bizarre scenario where drinking sugar-sweetened beverages has, to a certain extent, replaced drinking water. You can then begin to understand why the big increase of Type 2 diabetes might be happening in those areas.”

The data led to more questions.

“So this issue was: Is there a possibility that various substances that we consume might have effects separate from their calories?” Lustig said in a phone interview, drawing an analogy to alcohol.

“Alcohol is dangerous not because it's caloric,” he continued, “alcohol is dangerous because it's alcohol.”

Lustig's study compared rates of diabetes prevalence across 175 countries with sugar availability in those countries, while controlling for age, population, poverty, overweight and obesity.

“About 20% of obese individuals appear to have normal insulin regulation and normal metabolic indices ... while up to 40% of normal weight people in some populations manifest aspects of the ‘metabolic syndrome,’” according to the study. The authors reported “sugar availability appears to be uniquely correlated to diabetes prevalence independent of overweight and obesity prevalence ... while reduced sugar exposure was associated with decline in diabetes prevalence.”

The study determined that for every 150 total calorie increase per person, diabetes prevalence rose just 0.1 percent. However, if those 150 calories came from sugar, the risk swelled eleven-fold to 1.1 percent.

“It turned out that the (total) calories consumed had no relationship to diabetes prevalence whatsoever, but it was the sugar,” Lustig said.

Two months after the study was published, InterAct Consortium, an international team of researchers studying the influence of genetics and lifestyle on the risk of Type 2 diabetes development, released a [report](#) analyzing the association between consumption of sugar-sweetened-beverages—including artificially sweetened soft drinks—and Type 2 diabetes incidence in European adults.

The consortium found that Europeans who consumed one 12-oz. sugary beverage increased their risk for Type 2 diabetes by 22 percent between 1991 and 2007.

Complementing both studies is a June 2015 [systematic review](#) by Fumiaki Imamura, a senior scientist at the University of Cambridge with a doctorate in nutritional epidemiology. Researchers and faculty from the University of Eastern Finland, Kyoto University and Harvard University also contributed to the study.

The review compared 17 U.S. and U.K. studies analyzing sugar-sweetened-beverage consumption and diabetes prevalence to examine the association between the two, after adjusting for being overweight and obesity. It estimated that for every sugar-sweetened beverage consumed, the consumer’s risk for developing Type 2 diabetes would increase 18 percent over a 10-year period, “regardless of obesity status,” Imamura said.

“Which means that even if people are equally overweight or equally lean, drinkers had a greater risk of (developing) diabetes than nondrinkers,” he continued.

While these studies offer proof of correlation, not causation, Imamura remained convinced.

“That’s similar to the argument about smoking and lung cancer,” he said. “We have never done the randomized control trials of smoking and looking at the risk of cancer, but biologically we believe that smoking causes cancer by damaging your cells and causing mutation ... to me, that’s the same thing.”

Neither are those with Type 1 diabetes immune to the perils of sugar consumption. A June 2015 [study](#) published in *Diabetologia* reported that sugar-sweetened beverages exacerbated [islet autoimmunity](#) in children, a precursor to Type 1 diabetes.



Humans consume twice the sugar we did 50 years ago, and researchers have linked this consumption with increasing rates of diabetes.



Paul Begich, a Type 1 diabetic in Minnesota, said he uses clean eating and exercise to regulate his blood sugar.

Even adults with fully realized Type 1 diabetes can become insulin resistant, developing what is colloquially referred to as “double diabetes,” if insulin levels and sugar intake are not properly managed, Lustig noted.

“There is no question that Type 1 diabetics can develop insulin resistance ... Type 1 does not prevent you from having the cardinal features of Type 2,” he said.

Cavan shared Lustig’s position.

“Type 1 is due to a hormone deficiency, i.e., deficiency of insulin,” he said. “If you replace that insulin, the metabolism works as normally as it can ... and (Type 1 diabetics) will be susceptible to exactly the same changes as someone without Type 1.”

Paul Begich, a 23-year-old competitive CrossFit athlete and coach at CrossFit St. Paul in Minnesota, was diagnosed with Type 1 diabetes at age 15. Like most Type 1 diabetics, he manages his disease by counting his carbohydrate intake and administering insulin. After starting CrossFit in 2011 and adopting a mostly

“There is no question that Type 1 diabetics can develop insulin resistance ... Type 1 does not prevent you from having the cardinal features of Type 2.”

—Dr. Robert Lustig

Paleo diet—among other things, trading his standard breakfast of cereal to bacon and eggs—he said he’s able to more easily regulate his blood sugar.

“I definitely can tell the difference between when I eat (high) quality foods and when I eat poor quality foods,” Begich said. “When I eat Paleo or when I eat pretty clean ... I can definitely tell that my blood sugar is a little more stable.”

Type 1 diabetics can prevent manifestations of double diabetes by “following a healthy diet, and avoiding high-sugar foods ... and being physically active,” Cavan said.

So far, it’s worked for Begich.

“The reason I eat the way I eat and train the way I train is because for me it’s helped in the management of my blood sugar and my Type 1 diabetes,” he said. “CrossFit and a Paleo diet are what have allowed me to manage my diabetes to the best of my ability.”

Sugarcoated Science

“Myth: Eating too much sugar causes diabetes.”—[American Diabetes Association](#) (ADA).

Despite the evidence implicating sugar in the global epidemic of Type 2 diabetes, trusted authorities like the ADA have been reticent to shift their focuses from obesity to sugar as a primary cause of the disease.

The ADA published in its own journal, *Diabetes Care*, a [study](#) revealing a “clear link between SSB (sugar-sweetened beverage) consumption and risk of metabolic syndrome and type 2 diabetes” and admitting that “although SSBs increase risk of metabolic syndrome and type 2 diabetes, in part because of their contribution to weight gain, an independent effect may also stem from the high levels of rapidly absorbable carbohydrates in the form of added sugars.” Still, the association’s party line remains focused on obesity.

“Although calories from simple sugars contribute to calorie excess ... they are seldom the only source,” Dr. Robert Ratner, chief scientific and medical officer for the ADA, wrote in an email via spokeswoman Samantha Boyd. “And there is no connection between consuming sugar and developing type 1 diabetes ... saying that sugar causes diabetes is too simplistic. ... It also fails to put the focus on the many ways that people who are at risk for type 2 can act to prevent, or at least delay, developing it. Those actions include losing weight if overweight (or) obese, getting more physical activity and making healthy food and beverage choices as often as possible.”

Lustig has his own hypothesis regarding the ADA’s reluctance to implicate sugar.

“The ADA doesn’t get it, and they choose not to get it, and one of the reasons they choose not to get it is because they are in the pocket of Big Pharma,” he said of the ADA’s pharmaceutical [sponsors](#).

And the pocket is big.

In 2007, Americans spent \$12.5 billion on prescription drugs for diabetes; in 2019, that number is expected to surpass \$55 billion, Jeff O’Connell wrote in his book, “Sugar Nation.”

“An industry that forms around a chronic disease such as type 2 diabetes can be self-perpetuating,” he wrote. “More money can be made treating diabetes than curing it.”

It’s unsurprising the ADA chooses to focus on physical activity and weight loss as a primary offensive tactic in the fight against diabetes. It’s the same gospel [preached](#) by the sugar industry and Big Soda, including Coca-Cola, one of the ADA’s philanthropic [supporters](#).

In a 2013 [ad campaign](#), Coca-Cola touted its low-calorie beverage options and partnerships with fitness programs. PepsiCo defends its products in the name of moderation, offering “good for you,” “better for you” and “fun for you” [selections](#). Neither company advises its consumers to follow the World Health Organization’s [recommendation](#) to reduce [free-sugar](#) intake to less than 10 percent of total daily caloric intake and ideally less than 5 percent.

Cavan, who still practices medicine at Bournemouth, said he advises his patients to quit soda altogether.

“(Sugary drinks) confer absolutely no benefit and actually they may confer harm,” he said. “There are not many things where I say ‘just don’t go there,’ but that is one of them. ... To me, moderation means just avoiding them completely.”

Diet sodas aren’t above scrutiny either.

Imamura’s review also compared consumption of artificially sweetened drinks with diabetes prevalence. His team estimated that one drink per day would increase the consumer’s risk for Type 2 diabetes by [25 percent](#).

Lustig offered an explanation as to why artificially sweetened drinks might trigger the same influx of insulin as their sugary counterparts.

“You put something sweet on the tongue and the tongue tells the brain, ‘sugar is coming, get ready to release the insulin,’” he said. “The data shows that the pancreas releases the insulin, and you end up eating more.”

Sugar Free

After Buchan broke the news of his Type 2 diabetes diagnosis to his wife, he stopped drinking soda and sweet tea and took up a water habit.

“It was a tough transition at first, but once you get used to it, it’s easy,” he said.

On his doctor’s recommendation, he adopted a diet low in sugar and other carbohydrates and high in lean protein, monounsaturated fats and vegetables. A few months after his diagnosis, Buchan joined CrossFit Dedication in Vandalia, Ohio, training three times per week.

After six months, Buchan was cleared to stop taking two of his three medications for Type 2 diabetes. His latest labs, taken three months ago, revealed a hemoglobin A1C level within the normal range at 5 percent.

“I don’t feel myself getting run down,” he said. “I have more energy, I’m feeling stronger.”

Buchan hopes others with Type 2 diabetes—or a sugar habit that could lead to it—will learn from his story.

“The biggest thing is educating people,” he said. “I know what diabetes can do if you don’t get it under control. I (said), ‘That’s not gonna be me.’” ■

ABOUT THE AUTHOR

Brittney Saline contributes to the CrossFit Journal and the CrossFit Games website. She trains at [CrossFit St. Paul](#).

After Buchan changed his lifestyle, test results revealed blood glucose levels had returned to normal levels.





THE
CrossFit JOURNAL

PORTRAITS IN MOTION

Photography by Kieran Kesner

Capturing the beauty of athletic movement through the eyes of a first-time attendee to the CrossFit Games is a challenging task. Award-winning photojournalist Kieran Kesner attended the 2015 Reebok CrossFit Games with that goal in mind.



Cover: Stacie Tovar sprints to her next barbell during the Snatch Speed Ladder event.

Left: Jon Pera won Snatch Speed Ladder by blazing through bars loaded from 190 to 275 lb. in the three-round elimination tournament.



Camille Leblanc-Bazinet spends time in the surf on her paddleboard during a practice session days prior to the Pier Paddle event that opened the Games. At Hermosa Beach on the first day of competition, she took 10th place with a time that would have placed her 10th in the men's division as well.





Previous: Annie Thorisdottir dives under a wave during the Pier Paddle event.

Above: Team athletes climb the stairs during the berm-run portion of Earth Worm on Day 2 of the team competition.

Right: Roy Gamboa deadlifts two 200-lb. kettlebells during the final individual event, Pedal to the Metal 2.





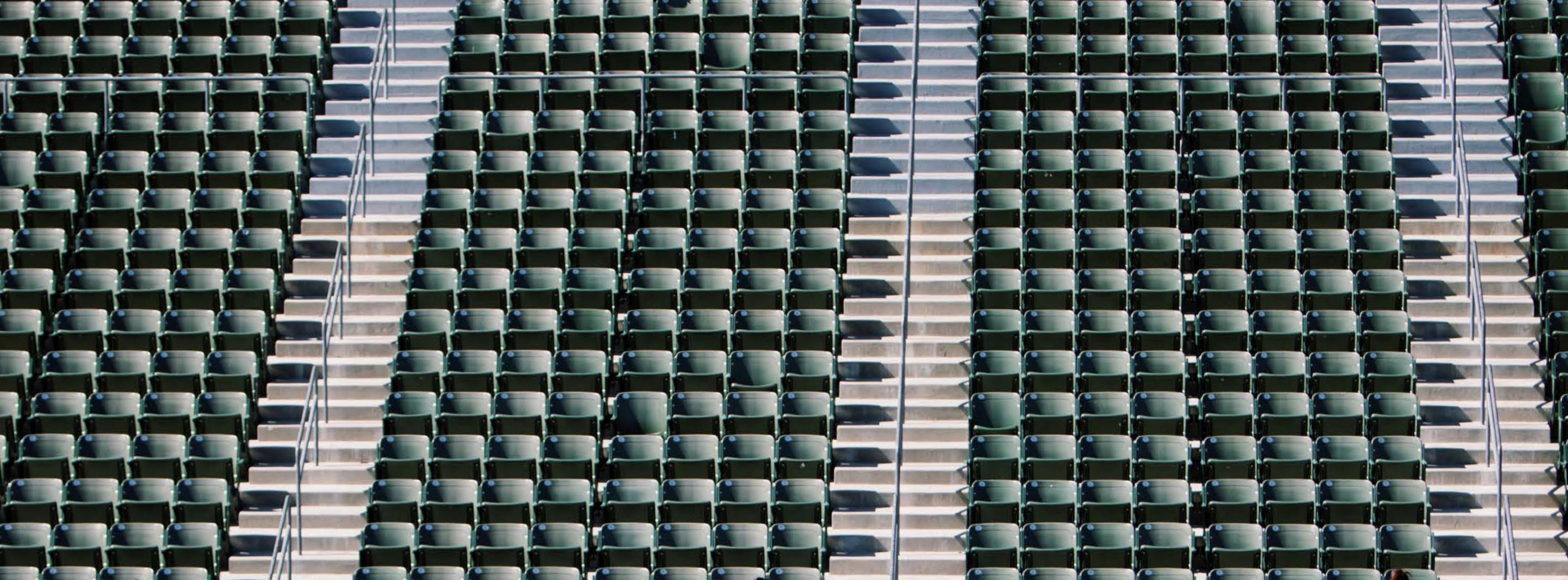


Previous: Games rookie Brooke Ence attempts to negotiate the pegboard during Pedal to the Metal 1.

Left: In 2010, Graham Holmberg placed 16th in Sandbag Move on his way to winning the Games. This year, he placed fifth in Sandbag 2015, a variation of the original event.



Left: Elijah Muhammad moves ahead of Ben Smith and Mat Fraser in the semifinal round of Snatch Speed Ladder.



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THE FITTEST ON EARTH



Previous: Individual female competitors jump the Tennis Stadium wall to begin Sandbag 2015.

Right: Dan Bailey deadlifts a 205-lb. barbell on his way to a sixth-place finish in Heavy DT. Fans selected the heavier load via Twitter to create the Games version of the Hero workout.



The pegboard in Pedal to the Metal 1 proved challenging to many athletes. Most of the female competitors, including Jenn Jones (below) and Alessandra Pichelli (right), could not complete a single ascent, while Margaux Alvarez and Amanda Goodman had little trouble with the board.





Kristin Holte kicks up to the wall for handstand push-ups in Pedal to the Metal 2. She finished the event tied for 19th.



Led by four-time CrossFit Games individual champion Rich Froning, CrossFit Mayhem Freedom edged out CrossFit Milford by a small margin to win the 2015 Affiliate Cup.



Froning and his CrossFit Mayhem Freedom teammates receive congratulations from Dave Castro, Director of the CrossFit Games, after finishing third in the final event to take the Affiliate Cup by 5 points.



Above: Mat Fraser recovers on the sand at Hermosa Beach following his 12th-place finish in the Pier Paddle event.

Right: Former CrossFit Games champion Sam Briggs rests against an LED display after winning Murph by more than a minute.





Rebecca Voigt—the only individual athlete to compete in eight consecutive CrossFit Games—collapses after placing 19th in Sandbag 2015. She was third in Sandbag Move in 2010.

Kevin Simons finds some shade in the Soccer Stadium after finishing 31st in Murph with a time of 50:27.71.







Previous: Katrin Tanja Davidsdottir takes a selfie with fans after being declared the Fittest Woman on Earth at the 2015 Reebok CrossFit Games.

Left: Ben Smith is congratulated by Dan Bailey following Pedal to the Metal 2. Smith finished fourth in the final event to win the Games and earn the title Fittest Man on Earth.

THE CrossFit JOURNAL

Squats and Tots

Four CrossFit affiliates share their strategies for keeping kids safe and minimizing the logistical headaches of gym-based child care.

By Hilary Achauer

September 2015



Courtesy of Chris Rosa

Tacheena Rubio drives a long way to work out. There are CrossFit gyms closer to Rubio's house, but she makes the hour-long commute to CrossFit Wilmington in North Carolina because the affiliate offers something others don't: child care. Rubio has three girls, ages 1, 8 and 13.

"The main reason for choosing this gym was the child care," Rubio said.

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Child care is a wonderful amenity for a CrossFit affiliate, but it brings with it a host of responsibilities for the owner. Affiliates such as Wasatch CrossFit in Utah, CrossFit West Sacramento in California and CrossFit Wilmington have engineered creative solutions that take the onus off the affiliate owner but still allow the business to offer a service that separates it from the competition.

Some affiliates, such as CrossFit Eminence in Thornton, Colorado, don't offer child care but instead provide a kids area, typically within view of the workout space. That, too, brings challenges. It's been said that **children are like tiny drunk adults**, and an unsupervised group can wreak havoc on the most kid-friendly space. Bringing children into an affiliate requires a delicate balance between satisfying the parents and making sure the space doesn't turn into a crumb-covered Gymboree.

The Co-Op

Damon Stewart has owned Wasatch CrossFit in Layton, Utah, since May 2007, and he's had a child-care program since August of that year.



Child care can be the difference in whether or not parents decide to join a gym, but it requires careful planning and oversight.

Wasatch CrossFit offers child care from 9 to 11 a.m. Monday through Friday, from 4 to 5 p.m. Monday to Thursday, and during the 10-a.m. workout on Saturday. The child care was formerly included in the membership price, but Stewart just added a charge of US\$20 per month per family for use of child care.

Stewart said he has two goals for the program.

"No. 1 is that the kids are safe. No. 2 is that no drama ever reaches me," Stewart said.

Stewart accomplishes both of his goals by employing a manager who's in charge of the program and staffing the hours with moms who use the service for their own children. It's a co-op model in which members trade hours providing child care for a discount on their membership. Stewart said he likes this set-up because he feels the moms care more than a stranger working for \$10 an hour.

The child-to-caregiver ratio in Wasatch CrossFit's child-care room is about one caregiver for every 10 kids; for the baby room it's one caregiver for four kids. The numbers of kids increase in the summer, so in order to avoid overwhelming the space, Stewart offered a CrossFit Kids program for the older children.

Before starting the program, Stewart looked into Utah's licensing regulations governing child care. He found that because the parents are less than five minutes away from their kids (in the same building, actually) and because food isn't served, Wasatch CrossFit is exempt from regulations governing traditional daycare facilities.

That didn't stop them from getting investigated.

"We got audited by the state for our child-care program," Stewart said. "They told us we exceeded their standards, and they loved what we were doing."

Licensing regulations vary from state to state, so it's important to research what constitutes a state-regulated child-care facility in your area.

Stewart said his advice to affiliates looking to offer child care is to focus on safety first. Then, he suggests letting go of some of the responsibility.

"We've empowered great people to do a great job," Stewart said. "The good ideas all come from the moms. They plan structured activities, and they have a budget so they can buy things like big rolls of paper for the kids to do art projects."

The child-care area is completely separate from the main workout space, but there are two big windows where

parents can peek in if they feel the need. Stewart said he plans to install video monitors so parents can easily check on their kids.

Licensing regulations vary from state to state, so it's important to research what constitutes a state-regulated child-care facility in your area.

For Stewart, offering child-care helps him set his affiliate apart from other gyms.

"It's a competitive differentiator," Stewart said. "We're in Utah, and everyone has kids. Gyms are dead between 9 and 10 a.m.," he said, so it made sense to fill the time with people who are home with their kids.

The program makes more than a competitive difference, though.

"The moms are the heart and soul of our gym," Stewart said. "The co-op child-care model has brought the mid-morning group together even more—there's nothing like taking care of another person's child to create a sense of closeness."

Outsourcing

Rick Larson, owner of CrossFit West Sacramento, started his affiliate's child-care program after a few near misses involving unsupervised kids.

"We thought we were being nice, and we let (the kids) sit off to the side with an iPad watching a movie," Larson said. This policy ended up being a serious safety issue.

"The kids want to mimic what's going on," Larson said. "We had a couple of close calls, and you can't run that risk."

Unlike Wasatch CrossFit's 7-year-old program, CrossFit West Sacramento has only been offering child care since February 2014.

Not wanting to get into the daycare business, Larson came up with an innovative solution. He contracted with Amber Roumiguere—a CrossFit West Sacramento member who is also a teacher with child-care experience—to run the program as her own business.



Courtesy of Kenny Hoff

In some gyms, child care is provided before or after kids workouts, allowing parents to train in the same trip.

It's called Little Heroes Childcare, and it operates separately from the affiliate. Roumiguere offers child care two nights a week and charges \$3 an hour, or members can buy a \$25 punch card that discounts the rate to \$2.50 an hour. Roumiguere manages the schedule; sometimes a parent arranges with her to come early or stay late.

The most important thing, for Larson, is that he doesn't have to be a part of these negotiations.

"I don't need another thing on my plate," Larson said. "It's way out of my realm of expertise. I'd rather write workouts, manage the coaching staff and run the business. I don't charge her to use the space. It's a perfect ancillary program."

The child-care hours follow the CrossFit Kids program on Tuesdays and Thursdays, so kids can go from their CrossFit Kids class into the child-care program while mom or dad completes a workout.

Larson runs an endurance class outside the gym while CrossFit Kids is taking place inside. Immediately after the endurance and CrossFit Kids classes, at 6 p.m., child care begins and a CrossFit class starts inside.

This scheduling allows the entire family to participate in the gym's activities. Larson said he would have lost members if

child care wasn't available, because it's the only way some parents can work out.

Little Heroes runs in empty office space that's part of the gym. CrossFit West Sacramento is in an office park and has about 2,100 square feet of usable workout space. There's an additional 1,000 square feet of office space, so Larson converted one of the offices into the daycare area.

"It's a separate area," Larson said. He said this works well because young children don't worry about what their parents are doing.

"Before they even know it, they are being picked up," Larson said.

According to California's licensing laws, a facility is exempt from regulations governing daycare facilities if temporary child-care services are offered while the parents are on the premises.

"The kids love it, especially the preschoolers who do CrossFit Kids," Larson said. For those kids, their time in care is like a continuation of CrossFit Kids.

Larson said he'd love to see the program expand, but Roumiguere has a full-time job and a family herself, so she might have to hire additional staff.



Courtesy of Kenny Hoff

For Amanda and Joe Welliver (center), having child care at CrossFit Wilmington helped them prepare to compete at the 2013 Reebok CrossFit Games.

"It's been a positive thing throughout," Larson said of the pilot program. "It's nice for mom and dad to know kids are secure and supervised vs. being unsupervised. It's comforting for them to know the kids are safe."

The Club House

Like Wasatch CrossFit, CrossFit Wilmington has been around since 2007. Its child-care program, which has been operating for about two years, is run by 26-year-old Stephanie Geissler, who manages the staff and the facility. Geissler is also a coach at the affiliate.

Geissler has 11 brothers and sisters, and she's worked in a daycare since she was 16, so she brings years of experience to the position. She employs two other women and sometimes brings in more help as needed.

Child care is open to kids from 6 weeks to 12 years and covers the 9-a.m. class as well as all the evening classes, starting at 5 p.m. Child care is also open on Saturdays from 9 a.m. until noon. The cost is \$5 for a drop-in, \$40 a month for unlimited child care for one child, and \$60 a month for unlimited child care for two or more children.

"We have them for an hour, change diapers, play with them," Geissler said. "We have a really big room because the facility is huge."

The extensive, well-run child-care program is why Rubio drives an hour each way to work out.

"CrossFit Wilmington has a good reputation," Rubio said, "but this (the child care) was a double positive."

Rubio said she knows a lot of mothers who are interested in CrossFit, but the No. 1 reason they don't join an affiliate is the lack of child care.

The child care at CrossFit Wilmington is especially important to Amanda Welliver and her husband Joe, who have a 3-year-old boy. In 2013, they competed on the CrossFit Wilmington team at the CrossFit Games. Amanda, a former college volleyball player and competitive beach-volleyball player, and Joe, a track athlete, both work full time.

"For us, trying to prepare for (the Games), we had to have some help because we had to be there at the same time," Amanda said. Instead of working out one at a time while taking turns caring for their son, "we could get our workout done together and with the team at the same time. That was invaluable."

Amanda said her son adores Geissler and loves going to the gym.

"My husband is a football coach, so in the fall it's like I'm a single mom, so I definitely heavily rely on (child care) during that time," Amanda said.

She likes that the child-care area is separate from the rest of the gym.

"For me, going to the gym is my time," Amanda said. "I'm either a mom or I'm not. (I like) being able to focus on one task at home, and I'm free for (my son) for the rest of the night."

**Geissler said her No. 1
recommendation for affiliates
thinking about offering child care
is to have every parent fill out a
liability form for every child.**

Geissler said her No. 1 recommendation for affiliates thinking about offering child care is to have every parent fill out a liability form for every child. She keeps the forms in a binder and uses them to keep track of any allergies, special needs, requests and payments. She also sanitizes the toys at the end of every night to prevent germs from spreading.

CrossFit Wilmington has a lot of space, so care is spread out over three rooms.

"We have the older kids in a space with a Wii they can use. The younger kids have their play area, and then the common area. It gives them space to move around," Geissler said.

The child-care area is also the only part of the gym that's air conditioned, which comes in handy during the hot North Carolina summer.

Geissler said instead of just passing time while their parents work out, the kids look forward to their time with her.

"They've all made great friends with the other kids. It's like clubhouse," she said.



Affiliate owners agree kids spaces should be governed by very clear rules to ensure safety and good behavior.

Spaces for Kids

Some affiliates don't have the option to provide child care, either because of space restrictions, state licensing requirements or lack of human resources.

To provide some type of child-care option for members with children—and to avoid kids running around on the workout floor—many affiliates have a separate kids area. CrossFit Eminence has a 400-square-foot area designed to keep children safe and out of the way during class time. The space, near the front door, has been in use since the affiliate opened three-and-a-half years ago.

"Parents have to sign in the kids each time they drop them off," said Lindsey Marcelli, who runs the affiliate with her husband, Kris.

The sign-in sheet is important because it gives the affiliate a record of the exact arrival and departure time of each kid, which Marcelli said is important for insurance reasons. The rules are also displayed right by the sign-in area.

"We don't allow food and drink," Marcelli said. Some other rules forbid sick kids from the area and keep children off

the gym floor, and the kids must be able to entertain themselves quietly for the duration of the class. If a child is screaming, the parents have to stop their workout and come get their child. Coaches are not responsible for babysitting or monitoring the children.

"Kids will be kids, but we expect their parents to act like the grown-ups they are." —CrossFit Eminence

"Some people hate kids," Marcelli said, so she's careful to make sure the affiliate doesn't feel like a daycare. And even people who love kids don't want to listen to crying during a workout.

The kids space is fully visible from all over the gym.



Courtesy of Charlie Wade

As a side benefit, many children will learn to love fitness by watching their parents train and improve their health.

"Well, you can sneak in one area where kids can't see you," Marcelli said of parents who would like a respite from the watchful eye of their toddler. Nevertheless, the visibility of the kids area means parents are able to keep an eye on their children and stop problems before they begin.

A short wall borders the kids space on two sides. One side of the half wall consists of cubbies for the members; on the other side of that wall—which is the inside of the kids' area—is a whiteboard. The other interior wall of the kids area is painted with chalkboard paint so the kids can draw everywhere.

"We have a futon couch for them that we can lay down or fold up. They love that thing," Marcelli said.

There's a bin of donated toys and books, including coloring books and crossword puzzles.

"We used to have a TV, but when the music gets loud (the kids) can't hear it," Marcelli said.

During the busiest time, the space has about eight to 10 kids, and the ages range from babies to 12-year-olds. CrossFit Eminence also has a CrossFit Kids program, so the young athletes use the space to hang out before and after class.

As with any common space, the success of the kids area at CrossFit Eminence depends on cooperation from everyone. Rule No. 7 summarizes this nicely: "The Kids Box is a drama free zone. Kids will be kids, but we expect their parents to act like the grown-ups they are. If too many conflicts and grievances arise between parents and their kids, we reserve the right to close the Kids Box and turn it into a Coaches' Minibar."

Safe and Happy

There is no one-size-fits-all solution for child care in the gym. Many affiliates don't have the demand or space to offer child care or provide a kids room. However, for some affiliates, offering care options is a good way to attract and retain members, as well as build a sense of community.

Affiliates who offer child care must be aware of their state's regulations and clearly communicate their in-house rules to parents and kids. And other members must also be considered.

The ideal solution is the one that keeps the kids safe and happy while allowing all members to freely pursue their fitness.



About the Author

Hilary Achauer is an award-winning freelance writer and editor specializing in health and wellness content. In addition to writing articles, online content, blogs and newsletters, Hilary writes for the CrossFit Journal and contributes to the CrossFit Games site. An amateur-boxer-turned-CrossFit-athlete, Hilary lives in San Diego, California, with her husband and two small children and trains at CrossFit Pacific Beach. To contact her, visit hilaryachauer.com

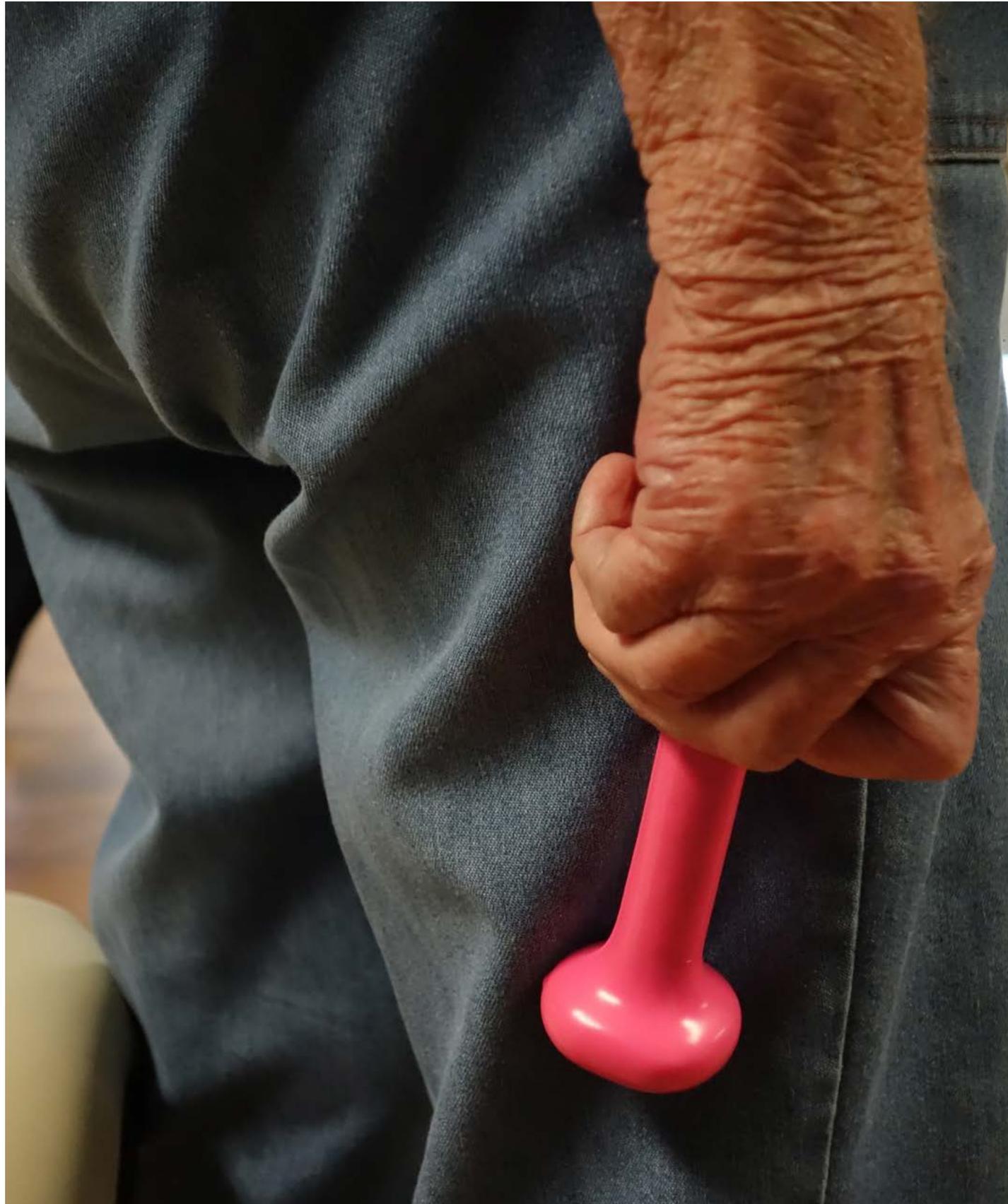


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CrossFit JOURNAL

THE SENIOR ENTERTAINER

BY ANDRÉA MARIA CECIL

After stumbling across an ad on craigslist, CrossFit Salem owner Andy Bolliger succeeded in developing a fitness program designed to help seniors improve quality of life.



Some women in Andy Bolliger's fitness class at Hidden Lakes senior-living community have requested heavier dumbbells.



Andy Bolliger (center) emphasizes the flat back in the deadlift with this group of seniors.

Square dancing was their favorite.

But as Bonnie Johnson aged, her balance became unreliable. She began using a walker. Square dancing with her husband, Norman, was no longer possible.

In summer 2014, the couple moved in to Hidden Lakes, a senior-living community in Salem, Oregon. Both Bonnie and Norman used walkers to stay mobile.

"She was falling over when she moved in," said Joyce Fowlkes, enrichment coordinator at Hidden Lakes.

That changed after the couple began attending 30-minute exercise classes twice a week.

After a few months, Bonnie was able to occasionally forego her walker in favor of her cane.

"I felt like I made a lot of improvement in my strength," the 82-year-old said.

She continued: "I don't fall over as easy. And if I start to fall, I catch myself."

Even 88-year-old Norman, who growled every time his wife made him go to the fitness classes, saw notable improvements in his mobility.

On at least one occasion, Norman abandoned his walker and took to the stairs.

"What are you doing?" a surprised Fowlkes recalled skeptically asking him when she saw him on the staircase.

Her concern was his safety.

"Norman was not walking up the stairs (before)," Fowlkes emphasized.

But Norman was bound and determined. He had been exercising.

The Johnsons are among several Hidden Lakes residents who have improved their strength, mobility, balance and flexibility since the new 30-minute fitness class started on Oct. 1, 2014.

There's a woman who can now put on her coat without help and another who can get in and out of cars by herself.



Those who attend the 30-minute fitness class say they've seen improvement in strength, flexibility, mobility and balance.



The ladies in this Hidden Lakes fitness class completed Grace together in less than five minutes.

"I definitely have noticed a major difference," Fowlkes said.

That difference was Andy Bolliger, owner of CrossFit Salem.

Over the course of his time at Hidden Lakes, he's come to develop an exercise program tailored for the elderly.

"It's the best (senior exercise) program I've seen ... as far as I'm concerned," said Fowlkes, who has worked in the senior-living business for 17 years.

She added: "He definitely understands what the residents need."

FULL OF GRACE

The announcement could be heard over the community's PA system: "Exercise with Andrew" was starting at 10 a.m. in the ballroom.

Seven elderly women appeared, making their way to the cabinet in the corner of the room. From there, they plucked

neoprene-covered dumbbells—none weighing more than 5 lb.—and resistance bands. They placed the equipment on the wood flooring near chairs arranged in a circular pattern and gave their attention to Bolliger. He stood inside the circle and began directing.

First were neck rotations. Then shoulder shrugs. To break the proverbial ice, he asked them to say their names and their favorite car they ever owned.

"I'll start. My name's Andy and my favorite car ... was my Volkswagen Rabbit."

There were Buicks. And lots of Cadillacs.

Continuing with their warm-up, Bolliger led them through arm swings, leg swings while holding onto their chairs and calf stretches, then had them perform squats by simply sitting in their chairs and standing up. Repeatedly.

"How many is that? Three?" Bolliger asked with tongue in cheek.

"Nine," 83-year-old Kay Weber said emphatically with a big smile.

Resistance bands were next. With those in hand, the women established a wide overhead grip for shoulder pass-throughs and then tried to pull the bands apart for a stretch.

"Try not to hit anyone," Bolliger cautioned. "Even if they deserve it."

Next it was time for the dumbbells.

First were presses, then clean and presses with the dumbbells starting at their sides as they stood tall.

"Bring the elbows into (your) sides, then up to the shoulders," Bolliger told them.

The ladies completed a handful of reps.

"What are we working toward here? Does anyone remember?" he asked.

Jeanette Knapp was the quickest to respond.

"Uh, Grace," the 84-year-old said.

That's right: This group of women, all over the age of 75, were warming up for a benchmark CrossFit workout: 30 clean and jerks for time.

But first, Bolliger coached them on the deadlift, emphasizing the flat back. They attempted to mimic his movement, though some were physically unable.

This group of women, all over the age of 75, were warming up for a benchmark CrossFit workout—30 clean and jerks for time.



After months of Andy Bolliger's fitness class, Delores Bennett can get out of her chair without using her hands.

Finally, it was time.

Synchronized, with dumbbells in hand, they counted aloud all 30 clean and jerks. They tapped their baby-blue, pink and purple weights to the floor, stood up and pressed them overhead.

"You definitely need some heavier dumbbells, Helen," Bolliger said to one of the women standing directly in front of him as the workout began.

"These are 2s!" she replied with wide eyes.

As they went on, 77-year-old Binky Mitchell had a realization.

"It's almost easier to go faster," she observed.

"I like the way you're thinking," Bolliger replied with a smile.

After the final rep, the ladies looked pleased with themselves, grinning at one another. There was even some clapping. It collectively took the group of nine just under five minutes to complete Grace.

With three minutes to spare, Bolliger had the ladies walk around the room while holding their dumbbells at their sides. Then, at the stroke of 10:30, they were off to Bible study.

"I didn't think I'd do this at 96," Vi Carter said as she walked toward the cabinet to store her equipment.

Carter has lived at Hidden Lakes for five years and started attending Bolliger's class as soon as it was offered.

"I think it's just right," she said, smiling. "It wakes us up."

THE ENTERTAINER

For years, Bolliger had wanted to start a seniors program at CrossFit Salem.

But when he added a couple of senior classes to the affiliate's schedule in 2010, he got "almost zero participation."

"I got discouraged because (for) a couple of people who expressed interest, price was a barrier," Bolliger explained. "(For) people from that generation, working out is an odd concept."

Three years later, though, his skills were put to the test after his now-79-year-old father fell out of a tree while pruning. The doctor recommended physical therapy. Bolliger's dad also went

to CrossFit Salem to try to regain simple physical skills, such as standing on one leg, through one-on-one sessions with his son.

"I couldn't believe how deconditioned he was," Bolliger said of his father. "He couldn't do one push-up—not even on his knees."

When he first arrived, the U.S. Army veteran could barely perform a sit-up, and squatting was out of the question.

"Those basic elements in CrossFit that we use and then amp up, he couldn't do any of them without any serious assistance."

But after about three months, Bolliger's dad was able to balance on one foot for 20 seconds at a time and squat without assistance. And he could do push-ups on his knees. The experience bolstered Bolliger's confidence in his coaching of the elderly.

"It may have solidified in my mind that I could do it because that was probably the first training I'd done with anyone over 70," he explained.

His next gig would further test his talent.

It was September 2014. Bolliger was perusing craigslist as he often did.

"Randomly every once in a while, I would just browse, Web surf, check out the jobs in the fitness section to see what's going on in our community," he said.

That's when he saw it: a job ad for an exercise instructor for seniors at Hidden Lakes, 1.5 miles west of CrossFit Salem.

Bolliger jumped at the opportunity.

He replied to the post and ended up on the phone with Fowlkes, who eventually explained the fitness class fell within the facility's entertainment budget.

"I'm not much of an entertainer," he told her, "but I run a fitness class."

Bolliger is a CrossFit Level 1 Trainer with additional certificates from CrossFit's Gymnastics, Powerlifting and Weightlifting trainer courses. Fowlkes wasn't convinced. She asked him to come in for a pro bono class.

"I was very skeptical," she said. "He did a class for free ... to show me what he could do."



Andy Bolliger's wife, Carol, said her husband's passion is to improve the fitness of all people regardless of age.

Right away, Fowlkes knew Bolliger was the right choice.

"Just the way that he was with the seniors—patient, made them laugh, he got them involved," she explained.

What was initially intended to be half an hour of resident entertainment came to be more.

"Essentially I'm doing basic CrossFit movements to the extent of their ability," Bolliger said.

He added: "We do squats every single day because they need it horribly and their mobility depends on their leg strength. We make squats the focus of our program and then we go from there."

In addition, there are deadlifts and presses.

"We go through a large variety of body-weight movements," Bolliger said. "I try to keep variety up so they don't get bored with it."

Weightless Turkish get-ups even made an appearance once after a resident asked for help on how to get down on the ground and back up again.

"I just tried to break it down step by step—put your leg here, put your arms here," he said.

Exercise, Fowlkes noted, is an important element of keeping seniors active.

"He focuses on the things that keep them healthy and balanced."

LADIES' MAN

Few athletes at CrossFit Salem know that Bolliger—a father of four, three of them triplets—spends any time teaching fitness at a retirement community.

He's not one to toot his own horn, said his wife, Carol.



Andy Bolliger leads his fitness class at Hidden Lakes senior-living community through a lengthy warm-up.

After his experience with his father, Bolliger realized seniors were part of population that needed attention, she said.

"It's not necessarily his mission, his passion. He saw a need and was looking for how to fix it," Carol explained. "His passion, in general, is fitness for everyone—whether you're 8 or 80."

Although she's never gone to Hidden Lakes to watch her husband in action, Carol jokingly added with a laugh, "He tells me ... the little old ladies love him."

She might be right.

"He challenges us. He's patient. He recognizes our limitations," Delores Bennett said of Bolliger.

After months of attending the class at Hidden Lakes, the 85-year-old said her balance has improved.

"I don't have to use my hands to get out of my chair at all. I just think he does a good job."

"He challenges us. He's patient. He recognizes our limitations."

—Delores Bennett, 85

Lily Van Someren said she's noticed improved flexibility in herself.

"All of us are hitting that age," the 90-year-old said, then laughed.

She added: "I really think it's good for us. It keeps you moving, pushes you a little bit. And he cares about us. I know he does."

Plus, Bolliger's class is better than watching the exercise video on Wednesday mornings, Weber said.

"I like the way he does it. We use weights and stretch bands and different things. I enjoy it."



Virginia Hinson, 86, uses a stretch band as she follows Andy Bolliger's direction during the warm-up.

Frances Sitko, though, might be a tougher sell.

"There's too much squatting," said the 97-year-old, who is blind in her right eye.

Still, she conceded: "It's certainly much better than nothing at all."

Van Someren offered a different perspective.

"Some say, 'He pushes you too hard.' Well, he's pushing us, but we need it, and he tells you, 'Don't go any further than you know you should.'"

She continued: "And it makes us get closer to each other."

EXPANDING THE VISION

With the success of the Hidden Lakes classes, Fowlkes has asked Bolliger to teach another class at Madrona Hills. The senior-living community is located less than half a mile away from Hidden Lakes, and Bolliger will begin teaching a weekly class there in August. Today, he's at Hidden Lakes at least once per week; every other week, he teaches two classes.

Fowlkes said she believes exercise is important for residents "for total well-being."

"If you don't use it, you're gonna lose it," she explained.

For his part, Bolliger wants to go even further with his classes.

He's in discussions with Oregon-based Holiday Retirement, which owns both Hidden Lakes and Madrona Hills, to expand the program to all of its 306 communities throughout the U.S. Holiday Retirement is one of the largest senior-housing providers in the country, according to [its website](#).

Nothing formal has materialized, but Bolliger is encouraged by his discussions with a corporate representative.

"(They) did show interest in taking this model and making it something that they could use at all their facilities," he said.

Bolliger's idea is to pair each Holiday Retirement community with local CrossFit affiliates that would use the model he created as a blueprint to lead their own fitness classes.

"I think it's a great idea," Fowlkes said.

She added: "The opportunities for him to build a program within our company are big."

In quintessential CrossFit fashion, Bolliger said he wants to shatter traditional societal notions surrounding how active seniors should be.

"It's assumed they can only just sit on the couch. It's assumed that everything is too risky," he said. "I try to tell folks, 'Ya know, all the assistance, bars, all these things that are there to keep you safe, it's great, but don't use them unless you need them.'"

He noted: "If you continue to use assistance, then you continue to be dependent on that assistance."

Improving quality of life is what Bolliger said he sees himself doing at Hidden Lakes and Madrona Hills.

"As far as I can tell, I'm the only person in their life that's saying, 'Hey, let's make things better.' That's special to me. I truly care about improving their life—not just getting them through it." ■

ABOUT THE AUTHOR

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THE **CrossFit** JOURNAL

MOP AND FAIL

BY EMILY BEERS

Nobody wants to do burpees in dog hair and someone else's sweat. Affiliate owners around the world share how they tackle the common and tedious task of keeping their floors clean.

Jessica Kates Chadwick dreaded mopping her gym.

“Mopping was work. Seriously, it was my active-recovery day and I put it off often because it sucked so bad. Lots of trips to empty and refill the bucket,” said the owner of CrossFit Confederation in Louisiana.

All told, it took Chadwick more than an hour to mop her floors.

And there was the one time she used a cotton mop on her rubber floors.

“It took forever to get the fuzz off the floor.”

Then Chadwick discovered microfiber mops. They last longer and are more sanitary, she explained.

Still, the microfiber mops weren't enough to rid Chadwick's floors of all the dirt, debris and chalk.

“Mopping was not solving the problem. It was just spreading around dirty water.”

Keeping floors clean can be the bane of an affiliate owner's existence. But industrious coaches from California to Australia have found timesaving, stress-less solutions for sparkling gym floors.

Floor Zamboni

To solve her floor problem, Chadwick bought a [Viper Fang 18C](#), an electric floor scrubber, for her 2,500-square-foot affiliate. It cost her US\$1,440, including tax and delivery.

Such floor scrubbers—often referred to as Zambonis because of their resemblance to the popular brand of ice resurfacers—essentially act as a mop, a squeegee and a vacuum all in one device. The machine automatically dispenses cleaning solution, and its two water tanks—one for clean water and the other for dirty water—take care of the rest.

Chadwick said it takes her about 20 to 30 minutes to set up her Viper, clean her floors and empty the dirty water from the machine. It keeps her floors cleaner than mopping ever could, she added. At least twice a week, she uses her Viper for a thorough cleaning. Chadwick vacuums daily with a [Shark vacuum](#).

“I did the vacuum and mop like five times and said, ‘Heck no.’ (Then) I started my search and research for a floor scrubber.”

—Andrew King

“There is a lot of debris and chalk that I like to (pick up) between scrubs.”

To fit his budget, Garth Crooke of CrossFit North Okanagan in British Columbia opted to rent a floor scrubber. He came across a local company that rents old machines that used to belong to the school district. Crooke pays CA\$26.25 (about US\$20) per month and also receives a free carpet-cleaning machine.

“When there's money in the bank account, I'll look at purchasing something new and fancy,” he said.

While most owners tend to use walk-behind scrubbers, Andrew King of CrossFit Bel Air in Maryland decided to splurge on a more expensive riding machine for his 10,000-square-foot facility.

“I did the vacuum and mop like five times and said, ‘Heck no,’” King said. “(Then) I started my search and research for a floor scrubber.”

After trying some demo models through a couple of local cleaning companies, King said he stalked craigslist until he eventually found and purchased a [Tennant 7,100 riding scrubber](#) with 200 hours of use at \$4,500. A brand new version of the same model would have cost him as much as \$12,000, he said.

Since buying the used Tennant two years ago, King hasn't had any maintenance issues. And he's had more time to work on other aspects of his business. It takes King about 15 minutes to clean his gym.

“Another five minutes to empty the dirty water and refill for next time,” he wrote in a Facebook message. “Once a month, it requires a few parts to be rinsed. (It) takes about 10 minutes max.”



Jessica Kates Chadwick said she found microfiber mop heads to be an improvement over the cotton variety at CrossFit Confederation, but a floor-scrubbing machine beat mopping hands down.



Courtesy of Jessica Kates Chadwick

Many affiliate owners know this sight all too well: dirty water used to “clean” gym floors.

King continued: “Days like today, I’ve cleaned the workout floor three times in between classes as it is hot and gross and people truly appreciate the cleanliness. . . . Best money I’ve ever spent. Worth \$50K.”

Mopping used to take Sean Hardy an hour and a half at CrossFit Lumberton in Texas. With his Viper Fang 18C, which he bought for \$1,500, it takes him half the time to clean his 4,000-square-foot facility. He saves three hours each week.

“It has been more than worth it,” Hardy wrote via Facebook message. “It’s so easy to use and it cleans floors way better than a mop ever did.”

Hiring Professionals

While some affiliate owners are singing the praises of floor-scrubbing machines, others said they weren’t the right choice for their gym.

“I tried several (floor scrubbers) and none of them worked because we have 4-by-6 (foot) stall matt rubber on a not-perfectly-even cement floor. So if you start using a (floor scrubber), it leaves dirty water underneath,” Vadim Noskov of CrossFit Long Island City in New York wrote via Facebook message.

Instead, he pays \$880 a month for a professional cleaning crew to come in once a week. The crew mops the floors of his 7,500-square-foot facility using vinegar.

“We have used vinegar (as a cleaning solution) from Day 1,” Noskov said. “It cleans any amount of chalk like there is no tomorrow, and is a natural disinfectant.”

Noskov isn’t the only one who’s opted for a professional cleaning service.

“Cleaning was one of the first things I outsourced. I still do some (cleaning), but not nearly as much.”

—Brad Bristowe

Brad Bristowe of CrossFit 3000 in Australia pays AUD\$700 (about US\$500) a month to have a professional service clean his 5,300-square-foot affiliate twice a week. The service cleans the floors, benches, bathrooms and café area and takes care of garbage removal, he said via email.

“Cleaning was one of the first things I outsourced. I still do some (cleaning), but not nearly as much,” Bristowe wrote.

The price range for a professional cleaning service is wide. In a survey of 10 affiliates—from Australia, Canada and the United States—that use professional cleaners one to six days a week, owners pay anywhere from \$150 a month to clean a 2,000-square-foot box once a week to \$3,000-\$3,500 to clean a 16,000-square-foot affiliate six days a week.

It’s a small price to pay for time that can be spent on other tasks, John Planow of CrossFit Genesis in California wrote via Facebook message.

“In my books, it’s totally worth it to have a nice, clean gym without having to spend my time doing it. Clients notice,” he said.

Planow pays \$195 a month for a service to clean his 2,500-square-foot facility once a week. Part of the routine is to thoroughly vacuum and mop the floors.

To keep up with the daily mess, Planow has also convinced his members to take care of their sweaty spots on the floor after each workout by disinfecting and mopping their workout area with a [polyvinyl mop](#). Between his clients’ spot cleaning and his professional cleaners, Planow barely has to touch a mop himself.

“We only occasionally need additional vacuuming and sweeping.”

Just Part of Doing Business

But for Duke Perino of CrossFit Cervus in New Jersey, neither a machine nor a professional cleaning service is in his budget.

His solution? A leaf blower and mop.

“In between classes, I break out my leaf blower and clear the floor of any debris by directing it out the bay doors,” said Perino

of his 3,000-square-foot space. “Following that, I sanitize our rubber floor by mopping with disinfectant. The next class is good to go in 15 minutes.”

The leaf blower, which Perino said does a better job than a vacuum, rids his gym of debris in just five minutes. Mopping takes another 10. Perino described it as a seamless process that takes little time and energy.

“Nearly all my equipment is up off the floor, so it’s easy to get around and under things. I usually turn my drum fans on so the floor dries in time for the next class to start.”

No matter the method, affiliate owners agreed keeping floors clean is part and parcel to daily operations.

“It has been one of my obsessions since the first day I was an athlete at an affiliate and was disgusted (by the filth), and it is now something I pride myself on as an owner,” King said.

Chadwick expressed similar sentiments.

“Burpees are bad enough. Who wants to do them on a dirty floor?” ■

About the Author

Emily Beers is a CrossFit Journal contributor and coach at [CrossFit Vancouver](#). She finished 37th at the 2014 Reebok CrossFit Games.



Whether they use machine power or elbow grease, most affiliate owners agree that clean floors please clients.