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THE **CrossFit**journal

Game of Moans

Medieval-combat fighters turn to CrossFit in preparation for brutal battles to come at the world championships in Spain.

By Andréa Maria Cecil

May 2014



His arms were pinned beneath the wooden dowel. Standing behind him, an attacker pulled the dowel tighter against his forearms. Both men struggled to maintain their footing. Then, with a sudden maneuver, the assailant further tightened the dowel and took his target to the ground with a thud.

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Anthony Lynch and Chris Wemmer (falling) spar during a Sambo class at FightFit Training Center in San Francisco, Calif., on April 21.

"You guys are chuckin' the shit of each other now," Robert Terlizzi told the two men as he smiled.

He added: "Everything is about making somebody step."

Dmitriy Ryaboy and Jeff Galli continued to take turns putting each other in compromising positions with the help of the wooden implement. Both took turns hitting the ground, as if choreographed, during the Sambo class on April 21 at FitFight Training Center in San Francisco, California.

"These are the moves I've been looking for," Galli excitedly told Ryaboy as he stood up from the most recent takedown.

Still, practicing the Soviet self-defense method with a wooden dowel in shorts, T-shirts and bare feet could never duplicate a battle with 70 lb. of medieval armor and weaponry.

The men who trained with Terlizzi were preparing to take to the grounds of a 558-year-old castle in Belmonte, Spain, less than two weeks later to pummel competitors from 22 other countries with swords, axes, polearms and maces all to become International Medieval Combat Federation world champions.

Fight vs. Fit

For 43-year-old Anthony Lynch, this all started when he was 21. That's when he came across the Society for Creative Anachronism.

"I saw a fighting demo of all these guys in armor, and they were just kind of going at each other," he explained.

Six months later, Lynch had assembled his own kit: armor padding included—and weaponry. He went on to win multiple national tournaments in one-on-one shield and sword fighting. Most members of Team USA—headed to the championship in Spain—are national tournament winners, Lynch noted.

The team comprises more than 50 people—men and women—who fight in battles involving two teams with three, five or 16 per side. The final is commonly referred to as a melee. These men and women come from five Armored Combat League clubs across the country with names such as Black Swan, The Knights Hall and Desert Demons.

All weapons must be blunted. Still, it's fairly common for fighters to end up with broken bones, head blows that



Medieval-combat enthusiasts: perhaps the best example of the "weekend warrior."

temporarily impair vision, dislocated shoulders and a bevy of bruises.

Lynch, who lives in Northern California and is a member of the Ursus club, has tried many types of training over the years: judo, jiu-jitsu, mixed martial arts, boxing, kung fu. But the one he credits most teaches little of fighting.

"CrossFit is the best," he said.

Lynch further explained: "It gives you the mind of a chess player and the body of a rugby player."

"You can be a great fighter, but if you're gassing out, it's irrelevant."

—Anthony Lynch

Through a CrossFit Inc. sponsorship, Lynch began attending classes at NorCal CrossFit Mountain View about a year ago. In that time, he's made notable progress. He told of his 10-lb. muscle gain, his girlfriend's appreciation for his biceps and his first national tournament after starting CrossFit, in which he landed a flying knee into a 300-lb. opponent.

"You can't do that if you're gassed," explained Lynch, 6 foot 6 and 240 lb.

He continued: "It's been a singular, game-changing experience.... Nothing has been as impactful."

Most Team USA members know how to fight. But making good decisions is more important, Lynch emphasized.

"The program is more powerful and more successful than any other fitness program I've experienced," he said of CrossFit.

As a medieval combat fighter, if you're never tired, if you're making the right decisions and have energy to spare, you are "much more successful than a great sword fighter."

Lynch went on: "You can be a great fighter, but if you're gassing out, it's irrelevant."

While the average age of most European teams is about 19, Team USA's average age is about 43, which means it's important to keep themselves injury-free in a sport that has seen men die during championships.

"We have careers and families, and we want stuff to work afterwards," said 46-year-old Steven Schroeder.

He added: "CrossFit helped with that."

Schroeder has also been training at NorCal CrossFit San Jose via a CrossFit sponsorship. He started in August. He credited the training methodology with making him more limber and giving him more control over his body. And that's a big deal when you're carrying anywhere from 65 to 100 lb. of armor and weaponry.

"My cardio's so much better," Schroeder said.

After eight months, 25-year-old Chris Wemmer said he's lost 35 lb. training at NorCal CrossFit San Jose. He now weighs 285 lb. at 6 foot 2. CrossFit also sponsored Wemmer.

"Oh, it's helped immensely," he said of its application to medieval combat. "My endurance has increased exponentially."

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Lose your footing and you lose the fight. Victory goes to the last combatants standing.

He added later via email: "I don't gas out and am able to recover a lot more quickly now from when I began the sport. Lifting, squats, running, jumping, all of it has played into increased mobility, speed and power on the field."

A Storm of Swords

Recreation and re-enactment happens all over the U.S., with tens of thousands of people showing up to watch some events. Take any Renaissance fair, for example.

The sword, specifically, has a mystique about it that has pervaded popular culture for decades.

"It's collectively imprinted on our brains," Lynch explained. "Anything that touches that and explores that, I think, is always an attraction."

When it comes time to fight, he described it as a test of personal resolve and fortitude—amid resounding blows.

"Testing yourself with a group of comrades," Lynch started, then continued, "people feel like they're going back through time and touching their ancestors, and that's part of the appeal."

He added: "We understand a little bit (about what) crusaders went through, what warriors and champions through history went through in those moments of victory and failure."

The International Medieval Combat Federation championship takes place at Castillo de Belmonte in Spain from May 1 to 4.



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

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Baby on Board

By Kristin Auger

Mothers share their experiences with CrossFit training during pregnancy.

A R ALA A ALANA



stand just inside the open door with one leg forward, feeling the customary adrenaline and prickly anticipation I always feel before the start of one of my favorite benchmark workouts. The familiar elements are all in place: my comrades milling beside me, bars loaded in rows behind us on the gym floor, music pulsating on high from the stereo.

"3,2,1 ... go!

I've heard the refrain hundreds of times, and I shoot off like a lightning bolt because running is my thing.

"Except for right now," I think. "Maybe running isn't my thing right now."

My chest feels awkwardly heavy on my ribcage, and my belly feels hard and rotund under my tank top. I slow down, think about my breathing. It's harder to breathe than normal. My legs feel sluggish.

I let a number of determined CrossFit athletes rumble past me, and I fight with my own stubbornness because I remember this internal battle between instinct and ego. Now is not the time to push myself to my limits, as has become customary to me in the last three years. Digging deeper, conjuring determination, getting after it-none of these apply to me right now because I'm 13 weeks pregnant.



Through experimentation while carefully listening to their bodies, pregnant women have found numerous ways to modify movements so they can stay fit during pregnancy.

Training for Two

've been doing CrossFit for almost four years, even eking together an ungraceful wall-ball-and-rowing workout two days before I gave birth to my second son in 2012. That pregnancy was wrought with an undercurrent of fear, though: I didn't really know what I was doing. For my own sanity, I knew I couldn't give up exercising for 10 months of prime adulthood. I listened to my heart during that pregnancy. I consulted my family physician early on, and when she told me to just stick to walking and perhaps some pregnancy-specialized yoga, I found another doctor. My new doctor told me that as long as I stuck to a routine similar to my pre-pregnancy regimen, I could run and lift and sweat and continue to keep fit.

"Listen hard to your own body," she urged. "It will know what do to."

It did know what to do. I made some mistakes along the way (over-zealous postpartum sit-ups led to diastasis recti, aka



abdominal separation)—but I gave birth to a healthy baby boy and kept my fitness and my self-identity along the way.

Dave Re / CrossFit Journal

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It's likely every pregnant CrossFitter will need to do the same: There is no encyclopedia for whether it is OK to do Fran while gestating. Definitive answers about what kind of exercise is healthy during pregnancy will not likely be found on the Web, or anywhere else for that matter, though research is in progress (see CrossFit Training During Pregnancy and Motherhood: A New Scientific Frontier).

Ainslie Kehler is a CrossFit athlete, personal trainer and recent graduate of the University of British Columbia kinesiology master's program. In her thesis paper on pregnancy and exercise, she explained in part why definitive guidelines for exercise by pregnant women might never be available.

Kehler spent months poring over research and published medical studies searching for the reason for a crippling lack of solid information for women looking to continue their exercise regimens through pregnancy.

She found a study written more than 24 years ago by research team Bung, Huch and Huck, who examined maternal and fetal heart rates (1). They monitored a professional athlete who trained up to six times a week with sprint work, submaximal testing, and strength and endurance training. The result of intense training throughout pregnancy was a healthy, uncomplicated birth and a mother who returned to professional-level training very quickly.

"But despite that study, scientifically valid experimentation through randomized controlled trials may never be feasible or ethical for studying pregnant women," she noted. It's just not acceptable practice for anyone to test the athletic

Now pregnant for the third time, I've scoured the Web, talked to pregnant and postpartum CrossFitters, seen a lot of false information and hysterical judgment, and come to many of my own conclusions.

> Definitive answers about what kind of exercise is healthy during pregnancy will not likely be found on the Web, or anywhere else for that matter 99



During pregnancy, weight gain can cause an athlete's center of mass to shift, but she can adjust her mechanics to compensate and perform a variety squats.

boundaries of a pregnant woman for fear of adverse affects on the fetus, and thus the prevalence of an err-on-the-sideof-caution culture in the medical and research communities. It's simply easier for mainstream doctors to stick to the gentle-walking and quiet-yoga prescriptions rather than risk a status quo shakeup.

Some physicians will tell you you're endangering your baby if your heartbeat rises above 140 beats per minute while you're pregnant (keeping it below that during even a very slow jog is nearly impossible for many), and knowing grandmothers and random Starbucks strangers will tell any pregnant woman she's a selfish jerk if she continues to attempt pull-ups.

But maybe pregnant women who want to keep exercising are actually inspiring and capable. Perhaps they're strong as hell, and perhaps keeping strength up for the pregnancy will mean better preparation for the rigors of labor and the mental and physical battles of sleep-deprived new motherhood. Perhaps it's likely that doing CrossFit through pregnancy—if monitored by a trusted doctor and conducted with an ear hard against the heart—is actually very good for both pregnant women and their babies.

Here are a few guidelines I've gathered in my own experience and by talking with community members who are listening to their bodies, their babies and their guts.

Find a Doctor Who Gets It

rarla Cadeau is a fitness enthusiast and mama from **N** Toronto, Canada, and she's currently pregnant once again. Cadeau lost her first baby at term, setting off years of worry and caution about subsequent pregnancies and babies.

Though Cadeau's loss was due to a rare condition and not because of exercise or anything she could have done differently, she wanted to do everything with absolute caution to help ease the fears created by past experience.

"This time, when I first went to my family doctor when I was four weeks pregnant and posed the question about continuing my fitness routine, she unequivocally said to stop. After some careful consideration, I didn't end up taking her advice and decided to listen to my body and do what felt

right, much to the dismay and disapproval of pretty much, oh, everyone!

"As someone who has lost a child and endured miscarriage, if I thought for one second that lifting something heavy could hurt my baby, I wouldn't. But there aren't too many people who share that same sentiment," she said.

Cadeau was incredibly relieved to be transferred to the care of an obstetrician who advised her to continue exercising at her current fitness level—just modified for comfort.

"I was floored," Cadeau said. "It finally felt like someone wasn't treating me like I was suddenly broken or super delicate because I'm with child. She listened and expressed that she wished more of her patients included fitness throughout their pregnancy."

You don't necessarily need to find a doctor who advocates CrossFit. You just need to know that every doctor has different opinions, and you need to find a trusted doctor who hears you and understands your exercise and life philosophies. He or she should be willing to consider your unique situation and be able to back up the advice he or she gives.

Swapping box jumps for step-ups is an easy way to modify a very common movement.



Listen to Your Body—Hard

rossFit devotees are typically accustomed to pushing themselves outside their comfort zones, knowing some of the biggest personal rewards come after a bout of serious discomfort.

Sara Stamm Bergland is a competitive CrossFit athlete at CrossFit Taranis in Victoria, Canada, who continued most of her activity for the duration of her pregnancy.

"There were a couple workouts where I had strange pains or dizziness," she said, "so I simply modified or slowed down and things were fine. I was able to jump, go upside down and lie on my back for short periods into the third trimester without any negative repercussions."

Stamm Bergland checked in with her midwives about CrossFit at every visit, and their mantra was, "If it feels fine, then it is." She ran with that wisdom with great success.

" When doing any activity during pregnancy, it's important to be hypersensitive to everything that's happening in your body. 99

When doing any activity during pregnancy, it's important to be hypersensitive to everything that's happening in your body. Pay close attention to yourself as you work out and realize you're training for two. When something feels wrong or uncomfortable, stop and adjust. That's sound advice whether you're inside or outside the gym.

Think About the Postpartum Period

espite reading that sit-ups during pregnancy may contribute to separated abdominals postpartum, I continued doing planks, crunches and sit-ups throughout my pregnancy, fearing I would lose my core strength if I didn't.

I ended up with severe diastasis recti, which was slowly repaired with physiotherapist-prescribed core exercises, and I won't be making that mistake twice.

Stamm Bergland has struggled with a weaker core after delivery and noted she's heard there can be detrimental effects from engaging your abdominals too strongly when they are so stretched. She did a lot of sit-ups and planks throughout her pregnancy and now suspects her efforts might actually have contributed to a weaker postpartum core.

"Given how weak my core has been postpartum. I think there might be merit to the theory that sit-ups during pregnancy will hurt rather than help your stomach bounce back post pregnancy," she said. "I was examined and monitored for diastasis (recti) during my pregnancy and did not get that, but I still feel like my core was devastated by the pregnancy. I think I may experiment with my next pregnancy and cut out sit-ups and T2B (all flexion exercises) as soon as I am through the first trimester."

Diastisis recti will impact 66 percent of pregnant women in their third trimesters. It doesn't go away on its own and can cause a host of medical problems, including incontinence and back issues. But the emotional impact can often be the worst for athletic women, as diastasis causes the internal organs to "bulge" through a gap in the abdominal muscles. This causes what is known as the cursed "mommy tummy": a permanently pregnant-looking belly that can upset previously flat-bellied women.

Physiotherapy can help, and so can avoiding exercises that strain the core (GHD sit-ups, crunches, knees-to-elbows) during the latter stages of pregnancy and in the immediate postpartum period.

> Change Your Competitive Mindset

regnant women shouldn't try for PRs or be disappointed when a 200-lb. back squat feels like 1,000 Ib. Pregnancy is the time for maintenance, and pregnant women should feel proud they're getting out and sweating. Further PRs can wait until after pregnancy, when many new mamas feel stronger than ever.

or pregnancy, stick to movements that feel right. Do wall-ball shots, shoulder-press movements, rowing and air squats. Burpees start to get mighty uncomfortable in the second trimester, so consider using a wall ball to absorb the impact of the movement with your upper chest to spare your stomach having to kiss the ground. You can also lower gently on your side rather than your stomach and step up out of the burpee if it doesn't feel too awkward.

You don't need to shrink into the corner and change your



1-mile run into a leisurely stroll, but expect to be about 20-30 percent slower on most of your workouts. If you feel a sense of panic because your nemesis is going to crush your Fight Gone Bad score, make it known you are going to do a predetermined number of reps at each station, and take five deep breaths between each round.

Focus on the movements that actually feel decent as your belly grows. Rowing and wall-ball shots were both great movements for me. I crushed a 5-km row PR days before giving birth to my last son, and the congratulations I got at the box made months of getting slower and more rotundand getting stomped by my rivals—fully worth it.

Modifications



One of my best coaches advised me to stay away from heavy cleans and snatches as my belly grew because I was just reinforcing a bad habit of keeping the bar too far from my body. He suggested practicing overhead squats instead, as well as moderately heavy deadlifts.

If you're worried about diastasis recti, work on Kegel excecises and tightening the inner core instead of sit-ups. Do push-ups against the wall and avoid plank-position holds that might encourage your innards to escape through your weakened ab muscles.

> Stay in control of your body and listen to it. 99

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Pregnant women should definitely avoid jumping/impact, falling and pushing to the max, and they need to be more concerned with sleep/rest, nutrition, hydration, breathing and fatigue during workouts. Stay in control of your body and listen to it. Some days will be great and others subpar. Make sure to adjust on a daily basis.

he bottom line, of course, is common sense. During pregnancy, the female body is arguably at its strongest and most inspiring. It's preparing to do something way beyond a mammoth clean and jerk or a lightning-fast mile, and in the end, the reward is more overwhelmingly joyful than any personal record.

Know there is more you can do than you cannot.

Accept Compliments

regnant women who are committed to maintaining their strength, power and personal well-being are admirable human beings, and many find support in their box.

Sandra Boenish did CrossFit throughout her third pregnancy. She credits CrossFit with a swift postpartum recovery and said she bounced back to normal strength and fitness levels very quickly.

"Of course it can be frustrating at times when you cannot do the things you were able to before you were pregnant," she said. "But being in the environment where you have people around to encourage you is always beneficial, and other Crossfitters tend to be very supportive of exercising in all conditions.

"Fellow Crossfitters always had ideas for exercises to sub ... for ones I couldn't do, and they inspired me to keep working."

1. Bung P, Spätling L, Huch R, and Huch A. Performance training in pregnancy. Report of respiratory and cardiovascular physiologic changes in a pregnant high-performance athlete in comparison with a sample of normal pregnant patients. Geburtshilfe Frauenheilkd 48(7): 500-511. 1988.

Kristin Auger is a writer, tech enthusiast, oversharer and CrossFit athlete. She lives in North Vancouver, Canada, with her hot, geeky husband, two rollicking sons, and a soonto-be-born baby girl.

During the CrossFit Games Open, just shy of six months pregnant, I was amazed by the cheers and encouragement by my fellow athletes.

On the CrossFit Games website, there's a whole community of pregnant athletes who took on the Open and pushed their own modified, individual boundaries. The article Competing Until Baby Arrives detailed one pregnant woman's participation in the Open, and a several others chimed in with comments. Posts on blogs tell similar stories. I finished 412th in my region, about 200 spots down from where I think I'd normally be, but I can't wait to compare my scores this year to the ones I'll get next year.

Nine-Month Workout

References

The content of this article is not intended to supersede the advice of a licensed medical professional.

About the Author



CrossFitJOURNAL

When "Harvard" Won't Do

A decision in 1976 by the Radcliffe women's crew continues to affect every single woman who puts an oar in the water at Harvard University today.

By Emily Beers

May 2014



When Cory Bosworth rowed for the University of California, Berkeley, it often felt as if she was a second-class citizen in her own boathouse.

"The boathouse was built for men," said Bosworth, who is now the assistant coach of the Radcliffe women's crew at Harvard University, a position she's held for the past 14 years.

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"We had to walk through the men's locker room—and walk right through the men's showers—just to get to the boat bay," she added.

The boathouse at Berkeley did have a women's locker room. It was built as an afterthought. In the attic.

"And there were no showers. There was no room for them," Bosworth said, smiling and shaking her head at the memory.

Facility inequality like this was the norm in college athletics in the 1960s and 1970s in the years before Title IX was instituted in the United States to end discrimination based on sex in federally funded education programs.

Since 1972, Title IX has been at least partially responsible for helping decrease inequality between men's and women's varsity sports. From increasing participation numbers to improving facilities, equipment, funding and scholarships,



An assistant coach at Radcliffe, Cory Bosworth dealt with inequality as an athlete at the University of California, Berkeley, in the '90s.

Title IX has ultimately helped bring about better opportunities for female athletes.

But like many pieces of legislation, real change often takes time. In fact, Title IX came into effect before Bosworth's time; she and her teammates were still shuffling through the men's showers on their way to get a boat for practice every morning even in 1999, Bosworth's last year rowing for Berkeley. Bosworth doesn't remember complaining about it. It was just the way things were.

And to a certain degree, despite decades of progress in women's sports, it's the way things still are.

You don't have to dig any deeper than to look at average attendance numbers at varsity athletics games to see men still dominate many sports today. It's not uncommon for the stands at women's basketball games to look empty until the final quarter, when fans show up early to get a good seat as they wait for the men's game. At universities and colleges across North America today, the final seconds of many women's games are often coincidental opening acts for the main event—the men.

It's just the way things are.

Weld Boathouse

Perched on the shore of the Charles River that runs right through the middle of Harvard's campus, Weld Boathouse has stood for more than 100 years.

An architectural highlight at Harvard, Weld was donated to the university in 1906 and has been used by the Radcliffe crew since the birth of the women's program in 1971. It's impossible not to recognize how beautifully Weld has been preserved; it's tidy, unblemished and well manicured, to say the least.

The spacious boat bays take up most of the ground floor, void of any athletes in March because the river is still frozen. The team members have been spending their time upstairs in recent months training on Concept2 rowing machines as they wait for winter to pass.

The program's pride is instantly evident in the ergometer room upstairs. Pictures and trophies of successful Radcliffe crews of the past can be seen at every turn, including shots of the 11 Olympians who have graduated from the program over the years.

While the success is easy to see, you have to dig a little deeper to understand the impact Weld has had on so many lives.

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While Radcliffe and Harvard signed a merger agreement in 1977, parts of the campus still retain the historic name of the former.

Weld is a place that has always been ahead of its time, a niche where women have always felt capable. It's a place where not having as much as the men hasn't stopped women from succeeding, a place where women have been flourishing since 1971.

The Vote: Radcliffe or Harvard

In 1976 in Cambridge, Massachusetts, Nelia Newell was a young college student at Radcliffe College, a liberal-arts institution founded in 1879 that essentially acted as the sister school to the all-male Harvard University.

Newell played ice hockey, and she joined the Radcliffe women's crew in 1975. The team first competed in 1971 and won its first national championship in 1973. Newell and her teammates were proud of what they accomplished in just a few short years.

At the time, things were changing fast. Harvard and Radcliffe had begun a lengthy merging process that wouldn't be totally complete until 1999. The athletics departments of the two schools had merged to form a new co-ed department, and later, in 1977, the two schools signed a formal "non-merger merger" agreement that really got the wheels in motion.

Newell and her teammates, proud of their Radcliffe origins, weren't so sure they wanted to compete under the Harvard banner.

Along with the changes to the athletic department, the plan was for all Radcliffe sports teams to change their names and compete under the world-renowned "Harvard"

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handle, but Newell and her teammates, proud of their Radcliffe origins, weren't so sure they wanted to change the name.

Thirty-eight years later, Newell, now a professor at Boston University, remembers the emotions involved with the 1976 decision.

"At the time, our identity was very much about Radcliffe crew. There was pride in that," Newell said. "We were very conscious of the fact that we were putting a black oar into the water. It was a part of who we were Our crew was successful, and we thought of ourselves as the Black and White."

Harvard's blades are painted crimson and white.

Newell's other team—her hockey team—was a different story.

"Ice hockey was a brand new sport, so we absolutely wanted Harvard jerseys. But with rowing, we were cheering 'Go, Radcliffe," she said.

Ultimately, Newell and her rowing teammates didn't feel they needed the Harvard name to feel legitimate.

The issue came down to a vote. The captains of each of Radcliffe's sports teams voted on whether to remain Radcliffe and compete in black and white or to become Harvard and compete in crimson.

Every single team chose to switch to Harvard, except one: the crew.

Architectural History

Deva Steketee, a senior from New Hampshire, is currently studying French and Spanish at Harvard. She's getting ready to wrap up her fourth season with the Radcliffe crew this spring.

Although Steketee rows in a different era than Newell did, she's very much aware of what happened at Radcliffe in 1976. The varsity rower is very conscious of her team's history and the importance of the past. And so are her teammates.

Steketee doesn't wish her team rowed under the Harvard name. In fact, she believes rowing for Radcliffe has made her experience as a varsity athlete even more meaningful.

"We still go to Harvard, but it lends something extra to have this incredible women's tradition. We carry the tradition of women's excellence at Harvard," Steketee said.





Emily Beers

Nelia Newell (top) rowed for Radcliffe in the '70s and is proud the crew's oars are still black and white.

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An indoor rowing machine of another kind.

One of the reasons Steketee believes the tradition has been able to survive through the last four decades is because of Weld.

"A big part of it has to do with having our own space having Weld be our space. It's a space of incredibly powerful women," she said.

Newell agreed. Weld allowed her team to develop an independent and meaningful identity back in the 1970s, in a time where the men's team always had more.

"My big fear is that girls now don't realize how recently things weren't equal and how easily it can be taken away."

-Cory Bosworth

During Newell's rowing days, the athletic department didn't even pay for the women to have racing uniforms. The team wrote thousands of letters to alumni and their families and friends in an effort to raise money to buy their own racing gear, which they eventually silk-screened themselves.

But it didn't really matter to Newell and her teammates.

"We were in our own boathouse, training for our own races, and we weren't thinking about what (the men) had or what we didn't have in our boathouse," Newell said.

This was a unique experience for female rowers back then.

"The Yale (University) women's experience was very different because they were in the same boathouse as their men. The men would take showers after practice, and the women would sit on the bus and freeze waiting for the men to finish their showers," Newell said.

She added: "But we had our own showers."

Weld isn't the only thing keeping the Radcliffe tradition live. One woman has invested herself in the last 14 years to ensure every single member of the Radcliffe women's team understands its history.

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"Cory (Bosworth) makes sure to pass on the legacy," Steketee explained. "Even if you walk on to the team as a novice, you find out pretty quickly what it's all about."

Bosworth explained she feels it's almost her duty to keep each generation of rowers informed.

"We're all here because of that hearty group of women," Bosworth said of Newell's team. "Marketing-wise, keeping the Radcliffe name wasn't necessarily the best choice. It's confusing to some people why we're called Radcliffe. But it has also given me an opportunity to talk about our history."

Bosworth added: "My big fear is that girls now don't realize how recently things weren't equal and how easily it can be taken away."

And so Bosworth makes sure every Radcliffe rower knows about Newell and her teammates from the '70s.

100 Million Strokes

As Steketee prepared for her final spring rowing season of her university career, she started to think about what she'll miss about the sport that has given her so much.

"I think rowing is about facing your fears down every single day, every single time you're on the line. We're on the line every single day in practice, and on weekends when we're facing off against other teams, and even when we're sitting on the erg getting ready for a 2 km (row). You know it's going to be painful, and you just have to keep putting yourself there again and again and again," Steketee said "It's about gritty determination."

Shared gritty determination is what bonds Steketee's crew to Newell's generation. It's something that trumps things like new uniforms, shiny equipment and adequate funding. And, of course, it trumps time.

Newell described her experience as a varsity rower 38 years ago in a similar manner:

"It's a really intense sport.... You compete together. You work out together. You deal with being freezing cold on the water together," she said.

Newell continues to be involved in the sport today as a volunteer coach of the Radcliffe lightweight women. On top of that, her two sons rowed for Harvard as lightweight men. Newell's younger son will graduate this year.



A late thaw of the Charles River kept oars out of the water for a while, but the season is now in full swing for the Radcliffe crew.

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As at Harvard's Newell Boathouse, the walls at Weld are adorned with the history of the athletes who trained there.



Deva Steketee (center)

Despite the fact four decades separate her experience from her sons', and despite the fact they're men and she's a woman, Newell said it's the similarities that are impressed upon her mind. Her sons are rowing in a time where equipment is better, training principles are more advanced and funding is miles ahead of 1970's levels, but ultimately those aren't the things that really matter. "Tons has changed, but every once in a while you become really conscious of what hasn't changed," Newell said. "The fundamentals are the same. You put your oar in the water and you pull. And rowing is about pulling as hard as you can for a race, and that hasn't changed."

She added: "And it's those fundamental things that end up taking up more of your memory than remembering the things you didn't have."

One thing Newell, Steketee, and future generations of Black and White rowers will always have is a shared history of strong women preserved by the name Radcliffe.



About the Author

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

Courtesy of Deva Steketee

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CrossFitJOURNAL

Lords of the Realm

Medieval combat fighters from the U.S. take seven of nine gold medals at world championships held May 1-4 in Spain.

By Andréa Maria Cecil

May 2014



In a sport based upon the unforgiving, brutal armored battles of medieval Europe, it was Team USA who proved winningest at the International Medieval Combat Federation world championship.

But what some call irony, team members quickly dismiss.

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Wielded with skill, the polearm is as effective in 2014 as it was in 1414.

The modern—if you will—pastime of medieval combat attempts to recreate the sport, not the societies of the Middle Ages, Team USA member Scott Stricklin noted via email.

"And hey, isn't chess from ancient China? Yet the Russians have mastered it," he wrote.

Europeans settled the U.S., added fellow team member Dale Saran.

"It is easily forgotten now in the days of voluntary military service by a select few that our country was birthed by warrior-statesmen," Saran, who also is CrossFit Inc.'s general counsel, wrote in an email.

Steve Schroeder, another man on the team, stated it simply:

"The draw of the sword is universal."

Rolling Back the Clock

At the inaugural championship—following a split from the Battle of the Nations organization over allegations that Eastern European countries weren't playing fairly—Team USA took home seven out of a possible nine gold medals earlier this month in Belmonte, Spain. In the other two categories, Team USA took silver. For complete results, visit the International Medieval Combat Federation website.

When the newly formed squad fought in 2012 at the Battle of the Nations worldwide championship in Poland, it won few fights. Last year, the improved team placed fourth in two events.

And so it appears the Americans are coming into their own. At least eight of them have been training with CrossFit some for years, most for months. CrossFit Inc. sponsored six team members who live in Northern California.

"Being able to let loose and have complete confidence in my body being up to the challenges I am putting it to? Yes, please. With CrossFit, I know I can get there," wrote Schroeder, who lives in San Jose, California.

The 46-year-old started at NorCal CrossFit's San Jose location in August. The first day at Castillo de Belmonte in Spain, he was part of four consecutive fights.

"My core is far stronger than it was in France. I have a more stable base and have been much harder to take down," Schroeder wrote.

He went on: "I feel fantastic. Mind you, I still felt I went (through) some scraps, but I feel physically strong and could have fought much more. Last year it was a matter of convincing yourself that you could go out and do one more fight. This year I wanted more!"

For Stricklin, a software engineer who lives in Virginia, three years of CrossFit gave him the strength and endurance

"I feel stronger and more capable now (than) I have in my entire life." —Scott Stricklin

needed to take opponents to the ground.

"I think it actually leveled the field between a 41-year-old computer nerd and a bunch of 20-something European fighters," he explained. "It didn't give me an edge so much as roll back the clock on age. I feel stronger and more capable now (than) I have in my entire life."

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Members of Team USA say improved fitness helped them stay on their feet even when battling younger foes.

Stricklin wrote the 2013 "CrossFit Journal" article "To the Pain." A few days after it was published, Saran left a comment, asking how he could try the sport: "Shit. I never should have read this. I could get addicted to this kind of nuttiness."

Even though Saran only took up medieval combat less than a year ago, he's been doing CrossFit since late 2005. The 44-year-old said those years of improving his fitness have proven key in his new hobby.

"You need a baseline of fitness that's hard to describe and if you haven't spent years in harness adjusting to that, then you'd better at least be fit," he wrote via email.

Fighters will wear from 70 to 100 lb. of armor and carry historically accurate—albeit blunted—weaponry that includes swords, maces, axes and polearms. The goal is to knock your opponents off their feet. Wearing the medieval helmet can feel like waterboarding, said Saran, who lives in Massachusetts.

"You're breathing in your own exhaled CO2 every breath so it feels like slowly suffocating."

He continued: "The physical and psychological demands of fighting in armor are unlike anything I've ever done and I've played ice hockey since my childhood, wrestling, baseball, football, track in high school, competitive Brazilian jiu-jitsu, rugby in college and law school, and on and on. Armored combat is harder than all of them. There is no 'taking a play off' or 'coasting."

In Shining Armor

Ask medieval combat fighters what stokes their fire for figuratively burying a sword into an opponent and they will answer that it goes beyond the violence. Instead, they talk of chivalry.

Put plainly: "the way the fighters treated each other," Saran said.

"I believe that chivalry isn't dead." —Steve Schroeder

The values shared on the grounds of Castillo de Belmonte transcend combat, Schroeder said.

"I think many people in modern society yearn for the idea of knights and knightly pursuits because it's such a

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Jeff Galli won the Men's Polearm category, and the U.S. team won seven events total.

powerful representation of men (and now women) being the very best version of themselves, on or off the field," he wrote. "It's important to me that our American knights never lose sight of that. I believe that chivalry isn't dead. New seeds were planted on the field in Belmonte."

Chris Wemmer, a Team USA rookie, said one of his most memorable moments of the championship was when he was knighted.

"The depth of feeling in accomplishment is deeper than anything I have felt before," the 25-year-old said via email.

Team USA fought well this year. And for that it is proud.

"We didn't lose sight of what was truly important: Our fights were clean and approached with deep respect for every one of our opponents," Schroeder said.

He added: "Children and adults alike approached to have their pictures taken with all the fighters. Seeing children waving American flags and cheering for us that was powerful."

About the Author

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

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A Visit to the Charles

It's a brisk day in March on Harvard campus in Cambridge, Mass. While many college varsity teams have already wrapped up their seasons, Harvard crews are waiting for the ice to melt on the Charles River so they can begin theirs.

Newell Boathouse, making their way to the second floor, where they start warming up for the afternoon training, their second session of the day.

Two athletes look out at the ice and snow that still covers the some rest between each. river during this uncharacteristically long winter.

"Melt already," one says.

The ice has relegated the team to training on Concept2 rowing machines-which they call "ergometers" or "ergs"—for a number of months. Everyone is eager to get back on the water.

This afternoon's session is self-directed. Head Coach Charley Butt is around to oversee the workout, but he's far from a drill sergeant.

"I'm not going to come in and blow a whistle or anything to start practice," Butt says with a smile before casually chatting with a few of his athletes in the warm-up area.

It's especially relaxed right now at the Newell Boathouse because it's exam time. As long as Butt's men show up and get their workout piece done at some point this afternoon. he's OK with the slightly independent training.

Craig Slater, a sophomore from New Jersey, warms up with two of his teammates. They plan to do a rate pyramid on the erg together. Busy with exams, Slater comes to the boathouse to help relieve stress.

"Our schedule is demanding, for sure. But it's fun. And when you're going through stressful times, coming here makes you forget (your stress)," says Slater, who spends 15 hours at Newell Boathouse each week.

"I mean, just look at these walls," he says, pointing to a host of pictures of successful Harvard crews from the past. "It's an honor to be here."

Slater's teammate, a Australian junior named Lachlan Han-

bury-Brown, agrees: "You can feel the past rowers that have sweat and bled in here."

Slater, Hanbury-Brown and their teammates already did three 12-minute rate pyramids this morning, meaning the stroke rate increased throughout the piece. In the first six minutes, they held a relatively low stroke rate of 24 strokes per minute. For the next three minutes, they Members of the men's varsity team slowly trickle into the bumped the rate up to 26. The following two minutes were at 28, and the final minute was a near sprint at 30 strokes per minute.

They repeated these 12-minute pieces three times, with

This afternoon's workout is just one 12-minute piece, but the results are expected to be better than in the morning

because of the reduced volume.

When the men hit the Concept2, they look smooth and almost methodically slow. They row in perfect unison, feeding off the rhythm of the others, which is especially easy today because they're all holding the same stroke rate.

Every stroke looks the same as the last; they're models of control and consistency. In fact, these men have the ability to close their eyes or cover the screen and maintain the same pace. They can hold the exact same split times for 30-plus minutes without feedback from a coach or digital display.

They explain this consistency is developed only over months and years of time on the indoor rowing machine.

Holding a 2:00 pace at the start of a 2-km piece and tumbling to a 2:20 pace in the last 500 m is like a runner sprinting the first 400 m of a 1,600-m run and then walking the last 400. No runner in his or her right mind would consider doing that in a race—and no CrossFit athlete's pace should fall off by 20 seconds during a 2-km row.



After the Charles thaws, these shells will be on the water.

A Common Rowing Problem

For many CrossFit athletes, the rowing machine is like a first date: a blend of dread and discomfort. The problem often isn't a lack of fitness but a lack of understanding of pace.

"I think I held around a 2:00 or a 2:20 pace on that 2-km row," is a line many a CrossFit athlete has mumbled while stumbling away from the machine.



00:00

SPLIT & STROKE RATE

Split—The amount of time it takes to row 500 m. If you hold a 2:00 500-m split for 2 km, your total time will be 8:00. Rowers often use the term "split" and "pace" interchangeably, and the numbers are always based off speed over 500 m. It's the most important number to know when figuring out how fast you should be going.

Stroke Rate-The number of strokes per minute. The shorter the race, the higher the stroke rate—in general. A men's eight crew at the Olympic Games will hold around 38 strokes per minute. A CrossFit athlete should expect to hold a much lower rate for a 2-km piece on the rowing machine because he or she is likely less efficient than a trained rower. Rowing at a lower stroke rate will also keep your heart rate lower.

Patrick Lapage (right) is now an assistant coach of the Harvard men's heavyweight crew.

One of the difficulties in nailing down a pace is that rowing is generally more foreign than running to many, so athletes don't realize they're sprinting too hard because they aren't sure what a rowing sprint feels like. Luckily, the monitor on an indoor rowing machine gives you instant and precise feedback, so you never have to guess how fast you're going.

The key is paying attention to the numbers on the monitor.

Discovering Your Race Pace

Cory Bosworth is the assistant coach of the heavyweight women at Harvard—a crew that has maintained its historic name: Radcliffe. Prior to 1977. Harvard was an all-men's school, while Radcliffe College was the women's school. Harvard's women's crew is the only varsity team at Harvard that uses the name Radcliffe today.

Bosworth has a simple way to help novice rowers and inexperienced CrossFit athletes discover a good pace for both 2- and 5-km race pieces.

First, test your max-effort 500-m row. From there, you can expect your 2-km split (pace) to be seven to nine seconds above that 500-m time.

2 km

For example, if your best 500-m piece took you 1:50, you can expect your 2-km average split to fall between 1:57 to 1:59, meaning your total time for two 2 km would be between 7:48 and 7:56.

"It's much better to ride a fine line and wonder, 'Am I going hard enough?'" —Cory Bosworth

CrossFit athletes might find this a daunting task at first. Often their average 2-km pace is much slower than just seven to nine seconds above their max 500-m sprint. This is likely due to going out too hard in the first 500 m

of a 2-km row, hitting a wall and slowing down significantly during the rest of the race. Focusing on keeping a consistent pace—even if it means the first 500 m feels

Bosworth warns inexperienced rowers to be extra conservative—suggesting a 2-km pace as much as 10 seconds above your 500-m time. Once you can manage that pace, try to speed up your split by another second or two. There's nothing worse than going out too hard and hitting a wall, she explained.

"It hurts (when you go out too hard), and it usually gets a really slow score, a number that doesn't represent what you can do." Bosworth said.

The key to the 2-km row is consistency. Many inexperienced rowers row the first kilometer much faster than the second. which is far from ideal. Bosworth recommends a novice rower should try to "negative split" the piece, meaning he or she should aim to make the second kilometer faster than the first.

sworth said.

almost too easy-will allow you to maximize your performance over 2.000 m.

"It's much better to ride a fine line and wonder, 'Am I going hard enough?' than going out too hard and petering out," she added.

"You trust you'll have the fitness to kick in later, and you consciously hold yourself back (in the first half)," BoIf you're a bit more experienced and can control your pace and hold a consistent speed for the entire piece, then a good option for you is as follows: First, determine your target speed. Let's say your target speed is 2:00 for a 2-km race. You would then plan to do your first and last 500 m one second below your target—at a 1:59 pace. Meanwhile, the two middle 500-m blocks would be rowed one second above your target—at a 2:01 pace.

Taking into consideration that your first and last 200 m—essentially your start and your sprint finish—are usually slightly faster, this allows you to save a little energy in the middle of the race so you can sprint for the final strokes.

As for the stroke rate for a 2-km row, most varsity rowers hold between 32 and 35 strokes per minute on the ergometer, while less experienced rowers are usually less efficient and better off holding a much lower stroke rate. Bosworth said a novice rower should consider holding a stroke rate of 28 strokes per minute.

She offered a general rule for stroke rates: "The newer you are, the slower you should go."

Despite Bosworth's emphasis on being conservative in terms of both speed and rate, it's OK to go a little harder at one specific point: the start.

The golden rule for CrossFit workouts is that most workouts are not won on the rowing segment, though an athlete can definitely pull too hard.

In fact, rowers pull almost as hard and as fast as they can in the first 10 to 12 strokes to get the flywheel moving because it ultimately doesn't affect their overall fatigue if the period of high intensity is short: about 20 seconds or so. This is because the first 10 to 12 strokes rely more on your phosphagen energy system, which fatigues quickly due to a reliance on stored creatine phosphate but can provide an initial burst before the body starts to rely predominantly on the glycolytic and oxidative energy systems. The demands placed on those systems need to be managed more carefully during the race to prevent the performance-limiting acidosis and metabolite build-up often characterized by the burning sensation athletes experience when working at relatively

high intensity for more than about 20 or 30 seconds.

With that in mind, you can hit the first few strokes hard "and consciously slow down your rate after that," Bosworth explained.

She added: "To some degree, the start is free speed."

5 km

When the day comes for you to tackle your first 5-km row. you'll be able to work off your 2-km pace to figure out a good speed for the 5 km.

Slater's 6-km pace—a common endurance-test distance for rowers—is six or seven seconds slower than his 2-km pace. This number largely depends on the athlete, though. Some athletes are sprinters, while other athletes are better at longer pieces. Rowers with more endurance will have 6-km splits closer to their 2-km splits; sprinters' numbers will be further apart.

Slater suggests a CrossFit athlete try a 5-km race at eight seconds above his or her 2-km pace. If your best 2-km time is 7:20, your average 500-m split is 1:50, so you could expect to hold a 1:58 split time for a 5-km race, resulting in a total time of 19:40.

As for stroke rate, Slater rows his 6-km piece at 30 strokes per minute but suggests a stroke rate of 24 to 26 for a less experienced rower.

Rowing in a WOD

Rowing a 2-km or 5-km race piece is, of course, much different than rowing 1 km before hitting 50 thrusters and 30 pull-ups, as CrossFit athletes do during Jackie. Similarly, athletes at 2012 Reebok CrossFit Games Regional competitions certainly didn't treat the 2-km row like a race piece when they had to do 50 pistols and 30 heavy hang cleans immediately afterward.

In Open Workout 14.4, a 14-minute challenge, athletes had to do a 60-calorie row before 50 toes-to-bars, 40 wall-ball shots, 30 cleans and 20 muscle-ups. Most employed a measured approach to the row that opened the workout, while those fit enough to complete the reps and return to the rower were usually faced with a short period of very hard sprinting.



Sophomore Craig Slater of Tinton Falls, N.J.



Though these rowers would rather be on the river, the Concept2 ergometer will do until spring.



Surrounded by more than 100 years of history, Harvard rowers also have access to modern technology including two indoor rowing tanks.

The golden rule for CrossFit workouts is that—generally speaking—most workouts are not won on the rowing segment, though an athlete can definitely pull too hard and negatively affect the other parts of the workout. In most workouts involving a row, the plan should be to minimize the fatigue the athlete carries into the rest of the workout without setting a very slow pace that causes the athlete to fall behind.

While rowers don't often run miles or hit pull-ups the in- 3.3 x 1,000 m—Again, the goal is to hold the same speed stant they finish a row, every year Harvard rowers compete in a fun intrasquad rowing and running event in which they race for bragging rights.

It begins with a 7,500-m row and is followed with a 4.2mile run that ends with athletes running up and down the stairs at Harvard Stadium.

"The winners every year aren't the best rowers. They're the best runners," Bosworth said. "It's easier to make up time on the run."

She suggests going 10 percent slower than you normally would on any particular distance if you have other work to do after the row. So if it takes you 4:00 to row an all-out 1-km piece, then your Jackie row time should be in the neighborhood of 4:24. Very fit athletes might be able to adjust the 10 percent suggestion and row faster, but the closer they get to their all-out 1-km times, the greater the risk that they'll be very fatigued on subsequent movements.

The key is to come off the machine feeling relatively fresh and ready to complete your next task.

2-km Prep Workouts

Patrick Lapage is the assistant coach of the Harvard's Men's Heavyweight Crew. Originally from England, Lapage rowed for Harvard from 2008 to 2012.

He offered some tips on rowing workouts CrossFit athletes can do to hone their pace and ultimately maximize their 2-km performances.

Lapage suggests:

1. Practice holding one split for as long as possible. This will

develop consistency and "boat feel" as the athlete starts to gain awareness of what a particular speed feels like over a long period of time.

2. 8 x 500 m—Do 2 sets of 4 500-meter pieces, with 1 minute in between each piece, and 5 to 10 minutes of rest between each set of 4. The idea is to hold the same speed for all 8 pieces.

for all 3 pieces. Rest for 3 to 5 minutes in between pieces.



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CrossFitJOURNAL

Building Behemoths: Part 2

Bill Starr goes over the finer points of training to lift big loads in strongman competitions.

By Bill Starr

May 2014



In Building Behemoths: Part 1, I outlined a number of exercises useful to any athlete training for any type of strongman competition, including those planning on entering any level of Highland games.

In that article, I promised to provide some ideas as to how to improve endurance and flexibility, two attributes that

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are often overlooked by the big men seeking to become the world's strongest. In reality, these attributes are just as critical for success in strongman events as they are in every other strength sport.

First, I'll give readers an example of how to program the exercises I recommended. All programs must start with simplicity, regardless of what sport the athlete is participating in. It's just common sense. Build the foundation first and make it solid before moving on to a more demanding program. Three days a week in the weight room are sufficient in the beginning. The other days are for rest and recovery and for practicing the various skills that will be needed in the type of strongman events you plan to enter.

I recommend one primary exercise for each of the three major muscle groups: shoulder girdle, back and hips/legs. Early on, avoid all auxiliary movements for the smaller groups and concentrate all your energy on the primary lifts. There will be plenty of time to hit the smaller groups later on.

Monday (Heavy Day)

Power clean or power snatches fall on Monday. Power cleans are preferred, but in many instances the extra-large athletes have difficulty racking a power clean properly. In those cases, power snatches are the better exercise. There is no need to aggravate your wrists and elbows trying to rack a power clean, and when done with heavy poundage, power snatches are most beneficial, primarily because they require a very long pulling motion, which activates a great many different muscles throughout the back.

For power cleans, do 5 sets of 5. For power snatches, do 2 sets of 5 followed by 3 or 4 sets of 3. Go to max, but be sure you're using perfect technique. Sloppy reps do little to enhance strength and can quickly lead to an injury. It's better to drill with a slightly lighter weight and do the movement correctly than it is to use faulty technique with a heavier poundage.

It's better to drill with a slightly lighter weight and do the movement correctly than it is to use faulty technique with a heavier poundage.



Many strongman events require shoulder strength, so Bill Starr recommends steep incline presses instead of bench presses.

For the upper body, do jerks. They are terrific for strongmen because they not only greatly enhance upper-body and overhead strength but also improve the athletic attributes of timing, quickness and coordination, all of which are valuable assets in many strongman events.

Take time to get your form down before adding a lot of weight. Once you feel the fluidity of the movement, you'll know it's time to run the numbers up. When everything clicks on a jerk, it will feel weightless. Do jerks in sets of 3. The bar will always move slightly from the ideal starting position on your frontal deltoids, and when it slips too far, a great deal of stress is placed on your wrists and elbows. It's better to keep the reps lower and add in a few more sets to up your workload.

At the end of every set of jerks, keep pressure up into the bar and hold it there for 5-6 seconds. That little extra effort does wonders for all the muscles and attachments throughout your body, from your traps right down to your feet. It's a very easy way to improve core strength. The idea of core strength has been vastly overworked, yet it's still a factor to consider by anyone wanting to get brutally strong.



The hip extension needed to shoulder a keg can be trained with explosive lifts such as the snatch and clean.

Wednesday (Light Day)

Keep in mind that light does not mean easy—far from it. The light day may be, in fact, the most demanding of the three workouts during the week. "Light" refers to workload. Exercises done on the light day will be, in most cases, performed with less weight than on the other two days.

For the upper body, inclines are my choice for strongmen. Why not bench presses, in which the most weight can be used? Because very few of the strongman events utilize the pecs to any great extent, but many of them involve the shoulders, and inclines work the shoulders much more than flat benches. Also, doing lots of bench presses tends to tighten the shoulders, and this you do not want.

Doing lots of bench presses tends to tighten the shoulders, and this you do not want. Alternate your set-and-rep sequence each time you do inclines. One week, 5 sets of 5. Follow that the next week with 3 sets of 5 and 3 sets of triples. The week after, try 3 warm-up sets of 5 and go to limit on doubles or singles. Do a back-off set at the conclusion of each session on the inclines.

If possible, alter the angle at which you do inclines every so often. If the bench you're using is adjustable, make the slant as steep as possible to force your deltoids and triceps to work in much the same way as if you were doing overhead presses.

For the lower back, you have two choices: good mornings and almost-straight-legged deadlifts. Better yet, alternate the two lower-back exercises every other week. The variety makes them more tolerable, and the two movements work the lumbar muscles and hamstrings in a slightly different manner.

If you just want to do good mornings, change the sets and reps every other week. Do 5 sets of 8 one week and 4 sets of 10 the next. Always use 5 or 10 lb. more on the 8s. The amount of weight you use on the last set of good mornings should be 50 percent of your best back squat. Hence, a 400-lb. squatter will handle 200 for 8 on the good mornings. If you build in this ratio from the very beginning, it's quite easy to maintain as your squat climbs higher and higher.

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For the almost-straight-legged deadlifts, the ratio to the squat is 75 percent. So our 400-lb. squatter will finish his deadlifts with 300 for 8. Again, if this is done from the start, it's not difficult to keep pace as the squat goes up.

You have some choices as to which exercises you want to do on the light day for your hips and legs: lighter back squats, front squats or lunges. If you decide you want to stick with the back squat three times a week, pull back the numbers on the light day—but not too far back. If you're squatting 400 for 5 on your heavy day, use at least 325 for your last set on the light day. And jump to that weight on your third set and do it three times. The load will still be considerably lighter, but those three work sets will keep you from waltzing through the session.

Front squats are terrific, yet they may pose problems for strongmen simply because the bar has to be racked solidly across the front deltoids in order to do them correctly. It's the same problem some big athletes face with the power cleans. However, if you can rack the bar properly and like the feel of the front squats, by all means do them. Three sets of 5 and 3 sets of triples will do the job. If the bar slips



Tires are yet another strongman implement that demands a lot of the upper and lower body.

off your shoulders too far, lower the work sets to doubles and add in a few more sets to up your workload.

If I had to recommend one of the three choices, I would pick lunges. The reason I like them so much is that they force both legs to work equally hard. This is not always the case in front or back squats. In those two lifts, athletes often learn how to move through the sticking point by shifting the effort to the stronger side. This cannot be done with lunges. Each leg has to carry its own weight, and over time lunges will bring that weaker leg up to par in terms of strength.

I find it useful to change the sets and reps on lunges at every workout: 4 sets of 8, 5 sets of 5, 6 sets of 3, and go after a max single once a month. The relatively higher reps help to expand the workload, while the lower reps hit the tendons and ligaments to a greater extent. Together, they steadily increase strength in the legs.

Friday (Medium Day)

This workout will consist of overhead presses, back squats and shrugs. Some find that they get more overall work in if they press on Wednesdays and do inclines on Fridays. Either way is fine. The presses should be done for 5 sets of 5 at first, then change the routine to 3 sets of 5 followed by 3 work sets of 3. Over the next months, steadily add in more sets of triples so you end up doing 5 to 6 work sets.

The back squats will be done in a different set-and-rep sequence than on the heavy day. On Friday, do 3 sets of 5 and then 2 sets of 3. Whatever amount of weight you did on Monday for that final set of 5, do 5 or 10 lb. more on Friday for triples. Then, at the next heavy session, use whatever amount of weight you did on Friday for your last set, and do it for 5 reps. In this manner, you will steadily run the numbers up on the back squat—and it's very doable.

On Monday and Friday, add in a back-off set for the squats. Eight or 10 reps is good, but they should be demanding. These sets are great for increasing overall workload. If you decide to do back squats on Wednesday, skip the back-off set.

Dynamic shrugs should be done on Friday, the last training day of the week, because if you attack them as you should, it will take two full days to recover. Shrugs are extremely important to every strength athlete and particularly to those wanting to excel in strongman events. They help strengthen all parts of the upper body and back. They must be done aggressively and with heavy weights. Staying in the comfort zone simply doesn't get the desired results.

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Shrugs can be done inside or outside the power rack, and both clean and snatch grips are beneficial. The key to getting impressive and tremendously powerful traps is to pull every single rep just as high as you can. This means those first few sets with light and moderate weights will travel up over your head. That's exactly what you want because they set the line of pull for all the other sets that follow.

Straps are needed, and your goal should be to handle six 45s on each end of the bar—585 lb.—for 5 reps. Five sets of 5 is sufficient for shrugs, and if you aren't sore the next day, you need to load more weight on the bar. For variety, try shrugging outside the rack. These are considerably harder because you must deal with balancing the bar; they force the lifter to pay closer attention to each and every rep, and that's a good thing.

Quick Lifts

In the last article on this subject, I recommended including snatch- and clean-grip high pulls and deadlifts in the program. How do these fit in? There are a couple of ways.

High pulls can be done right after the power cleans or power snatches on the heavy day. Just do 3 sets of 3.

Or they can be done as a separate exercise on Tuesday. Eventually, you're going to have to add in another training day so the workouts aren't so long. And every other week, you can do deadlifts on Tuesdays instead of high pulls. That's also a good day to do your calf work: 3 sets of 30. This will allow you to fully concentrate on just two exercises, and it will really push your overall workload up.

Give yourself a few months to build a solid foundation on all these exercises, then set your sights on learning the two Olympic lifts. These are, by far, the most useful movements for any strongman to learn. Even if form is not perfect, full snatching and clean and jerking will greatly enhance all the attributes needed to be a better performer in the strongman events.

Work into the Olympic lifts slowly. You're already power snatching, so you have the line of pull down pat. All you have to do is start doing overhead squats after you have completed a power snatch and you're halfway home in learning the lift. Even if you're not able to handle heavy weights, doing snatches will still greatly improve your timing, foot speed, coordination and balance—all of which can be transferred to many of the strongman events.



Loading a stone is a bit like a deadlift followed by a hang clean, so the quick lifts should be part of any strongman program.

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Do snatches in sets of 3, and, as always, form comes before the numbers. Everyone misses attempts, but if you start missing more than you make, use less weight. It's the movement itself that's beneficial—more so than how much weight is used.

If you're able to comfortably rack a bar across your frontal deltoids and do a front squat, there's no reason why you can't do full cleans. And you're already jerking. These lifts, like the snatches, greatly enhance athletic attributes that can be utilized in any other strength exercise, such as climbing the power stairs or dealing with Atlas stones.

The E-Word

Now I want to go over the attribute that isn't often addressed in an article about strongman training but plays a critical role in the success of athletes participating in those grueling events: endurance, aka stamina and staying power. The ability to dig deep in the physical and mental reserves is what separates the champions from the also-rans.

> The ability to dig deep in the physical and mental reserves is what separates the champions from the also-rans.

Many strongman competitions are held over a two-day period or stretched out over one very long day. Powerlifters do three tests of strength, and Olympic lifters do only two, so in terms of stamina, strongmen need three or four times more than those other athletes.

Endurance is often equated with some form of "aerobics," a word all big men hate with a passion. Running, riding an exercise bike or working out on a treadmill or a stair machine is completely repugnant to strongmen, but the experts say this what they must do to improve their cardiorespiratory systems. It cannot be done by lifting weights, those authorities contend. I disagree.

I believe any athlete can improve his stamina by lifting weights. The reason the experts think this is not possible is because when they talk about weight training, they're thinking in terms of a basic bodybuilding routine that calls for the athlete to do 3 or 4 sets of 10. In those cases, they're

right: there is little or no improvement in endurance. But handling heavy weights on a wide selection of demanding exercises does affect stamina.

Prof. Gene Logan of Southwestern Missouri State stated in *Adaptations of Muscular Activity*, "Strength undergirds all other factors when one considers the total functioning of the body movements. Without sufficient strength, factors such as endurance, flexibility and skill cannot be used effectively."

Before a toddler can walk, he must have enough strength to support himself. After hip, knee or ankle surgery, the patient must spend time regaining lower-body strength before he can become ambulatory. Walking, running, swimming, rowing and lifting weights are simply extensions of this truism. Getting stronger is the key.

When I was at York, I would often play volleyball or racquetball for a full hour without getting winded, and it was all because of my strength training in the York Gym. And I had witnessed other cases of lifters succeeding while doing some physical exercise that required them to have a great deal of endurance.



While most strongman events are very short, endurance is needed to get through a two-day competition with many tests.

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So how can a strongman utilize his strength training to improve his stamina? First and foremost, he must constantly move his workload and intensity higher and higher. Basically, it means the athlete has to handle a greater volume of work every month throughout the year, and the top-end numbers have to go up, as well. I went over how to calculate workload in Using Workload to Move to the Next Strength Level.

And another way to enhance cardio fitness is to constantly work longer each week in the weight room. This must be done slowly or you will fall into the trap of overtraining. This is why it's important to keep close track of your workload. Those numbers will tell you exactly how much more work you're doing each week and month. Without recording all your lifts, sets and reps, you're just guessing, and that can lead to trouble.

At York Barbell, when we were preparing for a contest and knew there would be lots of lifters entering, we got ready for it by expanding our training time to as much as two hours per session. We would also go through some workouts extra fast, just in case we found ourselves having to do two or three lifts in quick succession. Pushing the pace at some sessions, usually the lighter ones, really got us huffing and puffing, but it brought the desired results.

Or we would work extra fast at one particular exercise, such as the power cleans or high-pulls, to raise our pulse rates. I recall one Philly Open where I weighed in at 4 p.m. and did my last clean and jerk at 2 a.m. Without building in the factor of endurance, I would not have been ready to handle the weight I needed in order to medal.

In every sport, there are those who are conditioned for the long haul and come out on top. The lifter or strongman who is able to set personal records at the end of training or in competition is the one who will emerge the winner.

All athletes can improve their stamina simply by taking part in some sports or games they enjoy. Tommy Suggs and I used to spend one lunch hour a week either playing racquetball, volleyball or practicing soccer with the York College team. That little bit of extra effort paid off in the weight room and in the contests.

Train Hard—And Stretch

For overall success, learn how to do all the lifts in your program correctly, then slowly but steadily increase the workload and intensity while expanding the time you spend strength training.



Many strongman events test grip strength, so fat-bar training can help prepare for challenges including a farmers walk.

One other thing strongmen can do to help their cause: Take time every night to do a complete stretching workout. It will do wonders for recovery, and just a tad of flexibility can often mean the difference between finishing an event in first place or last.

Strongmen who take the time to cover all the bases and who work harder than their opponents will come out on top—as will dedicated athletes in every other sport under the sun.

About the Author

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

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CrossFitJOURNAL

Memorial Day Hurt

Some place flowers on the graves of soldiers on Memorial Day, and others suffer through a painful workout to honor the fallen.

By Hilary Achauer

May 2014



Josh Appel has a Memorial Day tradition. Before the barbecues, before relaxing with his family, Appel spends time doing a painful workout, one that makes him suffer.

Appel is an emergency-room doctor, a flight surgeon, and a former Air Force pararescue jumper. Suffering on Memorial Day is his way of honoring the fallen.

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On July 2, 2005, in Afghanistan, Appel led the pararescue team that flew behind enemy lines to rescue Hospital Corpsman 2nd Class Marcus Luttrell, the only survivor of Operation Red Wings. Luttrell told his story in the book "Lone Survivor," which was turned into a 2013 movie of the same name starring Mark Wahlberg.

On July 4, Appel and his team returned to recover the bodies of the rest of the four-man SEAL team, including Lt. Michael P. Murphy.

This Memorial Day weekend, Appel will be doing a workout that honors Murphy and the 86 Naval Special Warfare troops killed in training and combat since Sept. 11, 2001, as well as the thousands of others who have died in service of their country.

The Navy SEAL Memorial Challenge, will be held on Saturday, May 24, at the Half Moon Bay Golf Links, just south of San Francisco, California, and it will consist of two parts. In the first, 86 participants will complete the workout Murph: a 1-mile run, 100 pull-ups, 200 push-ups, 300 air squats and another 1-mile run.



Memorial Day is an opportunity to honor those who gave all for their country.

At the same time, 86 players, combined into 43 two-player teams, will play an 18-hole shamble-format golf tournament on the Ocean Course.

Unlike most competitions, however, there will be no winners. The focus will be remembering the 86 people who gave their lives.

Appel will be there, joining in on the suffering and thinking of those days in July.

The Origin of Murph

The workout Murph is named for Murphy, who lost his life during a mission to capture a Taliban leader in Afghanistan. Murphy and his SEAL team were trapped in a firefight behind enemy lines. Unable to call for backup where they were pinned down, Murphy abandoned cover and went into the open to call Bagram Air Base. He completed the call but was shot in the process, and he eventually died of the gunshot wounds. Only one soldier from Murphy's team survived: Luttrell. Posthumously in 2007, Murphy was awarded the Congressional Medal of Honor for his bravery.

In August 2005, the workout Murph was posted on CrossFit.com. The combination of gymnastics bracketed by one-mile runs was one of Murphy's favorite workouts, and he called it "Body Armor."

Appel was the one who started the association between Memorial Day and Murph.

"I started doing CrossFit in 2006 and heard about the workout Murph, so I started doing Murph on Memorial Day," Appel said

The next year, in 2007, Appel took the idea to his gym, Albany CrossFit, and proposed the idea of everyone doing Murph on Memorial Day.

"I thought this would be a good fundraiser," Appel said. He spoke with Dan Murphy, Michael's father, telling him he had an idea for an Internet-based national fundraiser to benefit the Lt. Michael P. Murphy Memorial Scholarship Foundation.

The idea was for people to sign up online and do Murph.

"Dan was like, 'Let me get this right. You want to start a fundraiser where people sign up online and then go to their own gym and work out?" Appel laughed.

"Yeah, pretty much," he told Dan.

Courtesy Navy SEAL Foundation

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Soldiers make sacrifices every day, and the CrossFit tradition is to pay tribute with sweat.

Dan asked Appel, "You think it will work? You sign up, you pay, you go to your own gym. Who would want to do that?"

"You don't understand the CrossFit community," Appel told Dan.

He was right. Since 2011 Appel has collected donations totaling about US\$300,000 for the Lt. Michael P. Murphy Memorial Scholarship Foundation, Lone Survivor Foundation and That Others May Live Foundation. The latter supports the families of Air Force rescue personnel who are killed or severely wounded in training or on missions.

Appel ran the fundraiser from his house for the first few years, but as it grew he turned it over to others. What hasn't changed is that proceeds from the fundraiser still benefit the Lt. Michael P. Murphy Memorial Scholarship Foundation.

Appel is attending the Navy SEAL Memorial Challenge in Half Moon Bay as a way to honor Murphy and the others who have given their lives.

"It's not just about Michael Murphy," Appel said. "It's an opportunity to memorialize everybody that's paid the ultimate sacrifice. Instead of going out and having a barbecue, go out and suffer a little bit and think about sacrifices people have made ... you put out a little pain, a little blood, a little sweat, some tears, for them.

"We are assigning names, but it's really for everyone your grandfather in WWII, that uncle you had that served in Vietnam, pretty much everybody."

Working Together

The vice chair of the Navy SEAL Memorial Challenge, Mackenzie Tobin-Padell, said they chose the number of participants—86—to pay tribute to those Naval Special Warfare personnel who gave their lives since 2001. The challenge raises money for the Navy SEAL Foundation, which provides immediate and ongoing support to the Naval Special Warfare community and its families.

"Each participant will be assigned a Naval Special Warfare hero," Tobin-Padell said. "This is a celebration of life, and the idea is that each of the people will have that hero in the back of (his or her) mind."

Unlike most competitions and challenges, the day is not about competition. It's about remembering the fallen and raising money for the Navy SEAL Foundation. There will be no podium. For the Murph portion of the event, all

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participants will run the first and last mile together.

The event chairman is Dick Costolo, CEO of Twitter and a CrossFit athlete.

"(Costolo) helped set the tone," Tobin-Padell said. "He's been heavily involved in keeping the tone about the warriors."

Another key participant is 2008 CrossFit Games champion Jason Khalipa, who has been involved in the event since the beginning. Khalipa reached out to people at Rogue Fitness, who agreed to send a pull-up rig free of charge for the event. Khalipa, Miranda Oldroyd and other members of the NorCal CrossFit coaching staff will be at the event to offer hands-on coaching for the participants taking on Murph.

Khalipa will run everyone through a warm-up and advise the athletes of scaling options. Even with Khalipa's busy schedule—running multiple affiliates, training for the CrossFit Games, and welcoming a new baby into his family—Tobin-Padell said the athlete put his heart into this event.



Lori Leathers (left) runs in tribute to her brother, Matthew.

"He's been amazing," Tobin-Padell said of Khalipa.

For Her Brother

Lori Leathers, a 45-year-old primary-education teacher, is relatively new to CrossFit. The idea of 100 pull-ups is a little terrifying for her. But she's willing to put her hands on the bar in the name of her brother, Special Warfare Operator 1st Class Matthew Leathers.

On Feb. 19, 2013, Matthew, a Navy SEAL, was on an ocean training exercise in Oahu, Hawaii. He went missing while free diving and never came back. He was 33.

"He was extremely experienced in free diving," Lori said. "They couldn't find him. It turned into a 10-day, crazy search, the largest search ever in that region with the Coast Guard."

Despite their efforts, Matthew's body was never recovered.

As Lori and her family mourned, she searched for a way to honor her brother. Matthew was very athletic and was especially interested in endurance running.

It was Lori who got her brother into running. He used to hate it and complained about the running he had to do in the military. Then Lori visited Matthew in San Diego, California. They went for a run together and Lori outran her little brother.

The gauntlet had been thrown down. Matthew went on to run the Honolulu Marathon. As he trained, he kept his sister updated on his progress, calling her to talk about the miles he had run and the blisters on his feet.

"It kind of became our thing," Lori said.

In 2012, Matthew ran the Hurt 100, a 100-mile trail race held every January in Oahu, Hawaii. "Outside" named the race one of the nine toughest ultramarathons in the world. Matthew took sixth.

He ran it again in 2013, but he broke his foot about halfway through the race and was unable to finish.

After Matthew went missing, Lori decided she would finish the race for him and started training for the 2014 Hurt 100. Lori's boyfriend suggested she start going to Another Level CrossFit in Lodi, California, once a week to build her upper-body strength in preparation for the race.

Lori ran the Hurt 100 in January 2014, making it through 80 miles before the 36-hour cutoff. Her family and members of Matthew's SEAL team were there to cheer her on.

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Robert P. Smith

After the race, Lori started going to Another Level CrossFit three times a week in preparation for the Navy SEAL Memorial Challenge.

"I'll be honest: I'm kinda freaked," she said about the idea of doing Murph.

"I have to be assisted with the band for a pull-up," Lori said. "I'm pretty tiny, and I don't have much upper-body strength."

But Lori said she knows it's not about her pull-up ability.

"It's really about Matthew, more than anything," she said.

When Lori was asked to participate in the event, she said she started crying.

"It hit me. I was just shocked. There's a lot more people out there, in my opinion, who deserve to represent him, not me. I'm just the sister. I see these guys (the SEALs) as these rock-solid studs that can just do anything. When (I was) asked to do it, I thought, 'Why me? I'm going to embarrass him.""

Then Lori decided she would do it to honor the memory of her brother.

"I think that he would be very impressed with whatever I do," she said. "I'm just there to bust my ass and represent (the SEALs) and not give up."

A Day of Remembrance

"(Memorial Day is) not just a day off work so you can do whatever. It's a day of remembrance. A day to remember people who have sacrificed," Appel said.

That's one of the reasons he started the tradition of doing Murph on Memorial Day.

"It promotes physical fitness, but it also gets people to remember what Memorial Day is all about," Appel said.

There are many ways to honor those who've sacrificed their lives for our country. Some put flowers on the graves of soldiers. Others endure a punishing workout, which can be a type of meditation—clearing the mind and forcing it to focus on remembrance.

For many SEALs, enduring Murph on Memorial Day is how they choose to remember.

"They do (Murph) every year," Lori said. "Every single SEAL I think on God's planet, every year on (Memorial Day), whether they are a on a ship somewhere, it could be in



Navy SEAL Matthew Leathers was lost Feb. 19, 2013, in a training exercise in Hawaii.

Saudi Arabia on the sand somewhere ... I guarantee you, they are figuring out a way to do that WOD to honor him," she said.

"That's just how they are."

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 is an editor and writer for the "CrossFit Journal" and contributes to the CrossFit Games site. An amateur boxerturned-CrossFit-athlete, Hilary lives in San Diego with her husband and two small children and trains at CrossFit Pacific Beach. To contact her, visit hilaryachauer.com

CrossFitJOURNAL

The Missing

Lisbeth Darsh explains why she'll be suffering through a Hero workout this Memorial Day.



Column

By Lisbeth Darsh

May 2014



"Mom, if I die, I'll die a happy man doing what I love to do."

My friend USAF Capt. James Poulet—call sign "Boo Boo"—said that to his mom in 1989, about a year before his F-15E fighter jet rooster-tailed for 300 feet across the Omani sand and then pancaked over into the ground. Boo Boo and his front-seater, Maj. Peter Hook (who piloted the aircraft) were killed instantly. They had been on an aerial engagement

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with a British Jaguar in preparation for the Persian Gulf War.

At 12:35 a.m. on Sept. 30, 1990, their lives ended 7,512 miles from home. They were just two of the 294 U.S. service members lost in Operation Desert Shield/Storm.

Boo Boo was 34 years old when he died. He had a soft voice, a great hug, and the last time I ever saw him, he purred in my ear. I miss him still.

Memorial Day rolls around each year, and we give it lip service. When I say "we," I mean us a society, not just me and you. There are parades and speeches and flags placed on front porches, but I'm not certain many folks stop and listen. I'm not sure people halt what they're doing and consider and appreciate the sacrifices made by people like Boo Boo.

Perhaps folks would rather not remember. Remembering is a hard thing, a painful thing. It's not fun, so it's easier to forget, to gloss over. Easier to shop and drink and sleep. That would be easier for me, too. But that doesn't make it right.

In the years after the horrific military casualties of the Civil War, families would gather for "dinner on the ground" near the graves of their loved ones. They would eat and drink and celebrate those they had lost. They had dinner with them. This is believed to be the start of the picnic tradition on Memorial Day.

In our modern society, somehow it feels like we have lost the purpose in our picnic. In many ways, we have forsaken a certain amount of community with our armed forces and with those who gave all. But I'm proud we strive to maintain the connection in much of the CrossFit world. We embrace and support and celebrate our service members, even after they have passed out of this world.

So if some people find it odd CrossFit has a tradition of remembering athletes who paid the ultimate price while serving their country, I don't really care. Let others wonder about our Hero workouts and question whether doing these workouts serves a purpose. When you think about it, however, honoring sacrifice with shopping is far more ridiculous. Better we should do a workout and speak the names of those who perished in the service of their country: That would be an honor.

I remember walking out of Boo Boo's memorial service on a warm North Carolina afternoon in October 1990. As we hit the oak chapel doors and spilled out onto the still-green and luscious lawn, we could hear the rumble



For many, Memorial Day is a chance to pay tribute with a challenging workout.

of the jets approaching. Four dark grey F-15Es screamed over our heads, and then one shot straight up into the sky in the missing man formation—a move both beautiful and breathtaking and heartbreaking all at once. The other three jets flew onward, straight and steady, the hole in their formation big and empty and somehow echoing to us and the whole world.

The missing man signified my friend Boo Boo, and it really hit home that he was never coming back.

This Memorial Day, when you wake up and lace up and get ready to head to your local box, remember Boo Boo and all the troops like him. We have lost so many wonderful service members in Iraq and Afghanistan and all the conflicts of the past. Honor these heroes, thank them, and let their memories live on.

About the Author

Lisbeth Darsh is a writer and editor for CrossFit. She also blogs regularly at Wordswithlisbeth.com. She served six years as an aircraft-maintenance officer in the United States Air Force.



ALL ACCESS PART 2: ROLL ON ATHLETES IN WHEELCHAIRS ARE EXPERTS AT ADAPTING. NOW THEY'RE

JOINING CROSSFIT AFFILIATES IN GROWING NUMBERS.

WRITTEN BY CHRIS COOPER | PHOTOS BY JENNIFER NICHOL

hris Stoutenberg was weeks away from playing in his first season of football at the University of Guelph in Canada. It was a beautiful day, and he was enjoying it at his friend's new bachelor pad, sitting on the tiny balcony. He leaned against the railing; it gave way.

In a snap, Stoutenberg was on the ground in agony. He'd traveled less than 20 feet, but his world had dramatically changed.

Stoutenberg fractured three thoracic vertebrae falling from his friend's balcony on June 18, 1997. Paralyzed from the waist down, "Stouty" woke up with metal rods in his spine and a huge hole in his life: sports, at which he'd always excelled, seemed gone forever. He was 19.

A NEW PATH

Despite the injury, Stoutenberg fought to recover, copying the exercises of more "advanced" rehabilitation patients he saw in his therapy sessions. He spent extra time in the gym, arriving an hour before his appointment and staying hours afterward.

By September 1997, he was back in school. After a year at Guelph, he was offered a Division 1 scholarship for wheelchair basketball at the University of Illinois, where he played for three years. He won a gold medal at the 2000 Paralympic Games in Sydney on the Canadian Men's National Team and another in 2004 in Athens.

In March 2012, Stoutenberg's cousin told him about CrossFit. That led him to Ontario's CrossFit Indestri. Over time, his coaches began posting videos of his workouts to YouTube. In short order, CrossFit found Stouty. Paraplegic athletes from around the world began seeking his advice.

CrossFitjournal

In turn. CrossFit created a chance for these athletes to regain their strength, enjoy therapy more and compete. It's a sharp contrast to the many rehabilitation programs for the newly injured in which therapists don't challenge their patients.

"They're not teaching independence. They're teaching vou limited things you need to do to survive. They're teaching you how to ask for help, not to help yourself," Stoutenberg said.

STOUTENBERG'S GRIT AND WILLINGNESS TO TAKE RISKS MAKE HIM THE SPEARHEAD FOR A WHOLE **NEW MOVEMENT: CHAIRED ATHLETES** DOING CROSSFIT AND KICKING ASS WITHOUT USING THEIR LEGS.

Stoutenberg's coach, Tyson Hornby, is familiar with the holes in therapy for new paraplegics. Through his wife's physiotherapy practice, Hornby has seen clients struggle with everyday tasks after therapy.

"Conventional medicine is not preventative." he said. "It's. 'Look after the problem after it occurs.' We see it with everything: diabetes, heart disease, obesity. I guess it's the same with adaptable athletes."

From the start, Hornby took the challenge of training Stoutenberg-and gave challenge in return.

"The first week or two, he wore a strap around his sternum to keep him upright," Hornby said. "But things were just too easy for him, so I said, 'Let's just get rid of it.' He struggled without it at first, but now he's doing things like hollow-body positions and superman poses. Those would not have been possible a year ago."

Hornby's strategy might have been novel, but it was grounded in his theory of neuromuscular adaptation—that the body will adapt to almost anything.

"Your nervous system is basically a big electrical grid. If your body can't go one way, you'll find a way around it," Hornby added.

Stoutenberg's grit and willingness to take risks make him the spearhead for a whole new movement: chaired athletes doing CrossFit and kicking ass without using their legs.



START WITH WHAT YOU HAVE

Most CrossFit coaches would be eager to have an athlete like Stoutenberg in their boxes: aggressive, gritty, experimental. He doesn't create problems; he solves them. And there are hundreds more just like him—toughened both in the palm and the soul by their wheelchairs, ready to go to war over a Fran time.

How do they get started?

"First, I'd want to see what the athlete can do," Stoutenberg said. "I'd like to see how mobile they are in their chair and how mobile they can be out of their chair."

Asking a wheeled athlete if he or she is comfortable getting out of the chair and doing tasks on the floor is a good starting point. Knowing that an athlete requires help getting back into the chair can guide a coach away from push-ups, for example.

"Then you look for trunk strength: side to side, front to back. They have to be able to stabilize themselves anytime they're putting weight overhead," Stoutenberg said.

If an athlete can't stabilize even a light weight overhead, he or she can be strapped a bit higher in the chair for support. That creates other difficulties: As the load is shifted to the strap, it's also shifted to the chair, which can tip backward.

FINDING BRIGHT SPOTS EARLY **MIGHT KEEP THE WHEELED ATHLETE** ENCOURAGED AND ENGAGED.

"You need a sport wheelchair. I suggest one with two small, caster-like wheels on the back so you don't tip when you lean back," Stoutenberg said.

"Next, I'd be looking at their left-to-right. Are they able to lean left and touch the floor and come back up? Do they need to grab their wheel to push themselves back up or pull from the other side?"

If athletes can't right themselves, they can't safely hold a barbell because one hand will always be required to stop the lateral movement of the torso. Quickly dropping a barbell might not be an option for chaired athletes.



"You won't be able to just drop it. You have to push it out past your lap. It's almost a toss forward," Stoutenberg said.

Locking the wheels of the chair also has pros and cons. Lifting from the floor is more challenging when the wheels are free because the chair will tend to be pulled toward the weight. An athlete can lift more with the wheels locked. but it's harder to escape a missed overhead lift.

"If I'm doing anything where I'm locked down, then I have a spotter. But if I have to move in the middle of a workout, you have to be able to get yourself free and moving again quickly," Stoutenberg said.

In that scenario, Stoutenberg places sandbags in front of and behind his chair to block his wheels.

"When you're done (with) the exercise, you grab the bag in front, move it and you're on to the next thing," he said.

Other assessments Stoutenberg recommends include pulling strength, pressing strength and grip strength. The way an athlete turns the wheels is also important: a shorter-armed athlete can't grab as much wheel on each turn but might be more explosive off the starting line.

"I find my best is the longer runs," said the 6-foot-4 Stoutenberg. "I can grab from way back and push all the way through until I have to let go again. In a longer run, like an 800 m, I can get out in front almost every time. Once you have your momentum, it's easy to hold it. But I get beat off the start."

Finding bright spots early might keep the wheeled athlete encouraged and engaged. Like any other athlete, those in wheelchairs want to know they can be good at CrossFit someday. But the real motivation might be far beyond the desire to look good naked.

A PRESSING MATTER

Stouty's real motivation isn't on the whiteboard. It's on the floor. And it drools.

"I have an 11-month-old son. When my wife was pregnant, I thought, 'I can't even pick this kid up.'"

Limited by a lack of lower-back strength, Stoutenberg knew he had to find a way to interact with his child. He feared being left alone with his own son.



Chris Cooper is a **CrossFit Journal** staff writer. He owns CrossFit Catalyst in Sault Ste. Marie, Canada.

"If I go down to my knees and he's on the floor, what do I do? Do I have to be on the floor the whole time? If something happens, am I supposed to call an ambulance or hope for help?" he shook his head. "No. Not good enough."

When he started CrossFit, Stoutenberg couldn't sit upright without using his arms. If his chest dropped to his lap, he was stuck.

"I can deadlift 120 lb. now," he said. "If he needs to be picked up when he's 120 lb., I can do it."

Stoutenberg's deadlift even requires an exaggerated range of motion as the 60-lb. kettlebells he uses are closer to the ground than a barbell would be.

A paraplegic's chair can impair quality of life if it affects independence, play and human contact. The constant

separation from others, though only by a few inches of steel and rubber, can negatively affect many aspects of a paraplegic's life. A choice of spouse, career and hobby can no longer be taken for granted after a catastrophic injury. Worse, Stoutenberg said many rehabilitation programs set their sights too low.

"They were preaching to me, 'Here are all the ways you need to be limiting your mobility to stay safe.' What they should be doing is taking people out of their wheelchair, setting them on the ground and saying, 'What would you do if this happened to you and you're all alone? How do you get up? How do you get back to your chair?'" he said. "You're supposed to get a nurse to help you survive or have your family take care of you. They should be pushing you along and asking how you're going to take care of yourself." Without the use of his legs, Stoutenberg spends twice as much time on pushing and pulling movements; almost every lower-body exercise can be traded for an upper-body equivalent to make his workouts comparable to those of other athletes in the box.

Training for real-world challenges is just as important for Stoutenberg as it is for any other CrossFit athlete. Some exercises require him to tip his chair over and then regain an upright position. For example, his burpees require sprawling on the ground, wheelchair still strapped to his waist—a situation many paraplegics fear. In sharp contrast, Stoutenberg believes the ability to right himself when tired is critical.

"In everyday life, in a wheelchair, at some point in time, you're going to fall. It's going to happen. You're going to

catch yourself on a curb, something. If you can't get back up, you're screwed."

It's about independence, Stoutenberg continued.

"The value of being able to get back up means you aren't scared to leave your house. It gives you the independence to be able to live on your own or with someone who doesn't have the strength to pick you up."

"THEY SHOULD BE PUSHING YOU ALONG AND ASKING HOW YOU'RE GOING TO TAKE CARE OF YOURSELF."

-CHRIS STOUTENBERG

He added with a laugh: "That's why I got my wife into CrossFit: when I get older, she can carry me around."

Stoutenberg isn't the first athlete to transition from ablebodied sport to a wheelchair. But his CrossFit exploits have made him a role model for others, and he hopes his process of trial and error can ease their initiation. When function has limitations, functional fitness becomes even more important.

ABOUT THE AUTHOR

CrossFitjournal

CrossFit Risk Retention Group Inc. Announces Premium Reduction, Claims-Free Discount

RRG members to save almost \$1 million in premium costs from June 1 through 2015.

By Eric Reingen

May 2014



Effective June 1, 2014, CrossFit Risk Retention Group Inc. (CF-RRG) will implement two cost-reduction programs for its members.

First, the minimum premium for all affiliates will be lowered to US\$1,185 annually, a cost savings of \$165 per member. Second, the total premium cost will be discounted 20 percent for members who have not had a previous claim. The net decrease in cost is 14.7 percent, a savings of approximately \$958,724 for CF-RRG members through 2015, according to a Perr & Knight study conducted in December 2013.

The changes validate the success of the CrossFit RRG program but more importantly confirm many of its original tenets.

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As a whole, the CF-RRG community is safer than the fitness world at large, which has led to net profit for the insurance company. (The original rates and minimum premium were based entirely on fitness-industry-wide insurance data. This discount and reduced minimum are based partly on CF-RRG's own loss history, which has been much better than that of the fitness industry.)

As originally planned, CF-RRG will return its profits to its members in a manner that will not threaten the financial security of CF-RRG. The board of directors and its actuaries, administrators and regulators have come to a consensus that cost reductions are the best approach. CF-RRG truly is by the community, for the community: No other insurance company has returned its profit to the CrossFit community.

Premium Reduction Vs. Dividend Return

The RRG team has spent several months analyzing cost reductions, and research suggested premium reductions are better for both members and the RRG when compared to releasing a dividend. From the membership standpoint, premium reductions can help lower annualized costs while also standardizing the lowered cost over multiple years. With a dividend return, the lump sum would be a one-time event, and the total return could vary over time. More importantly, a dividend release could subject each member to capital-gains taxes, thereby reducing the total profit realized by each member. Premium reductions will prevent capital-gains taxes from becoming an issue.

From the CF-RRG perspective, premium reductions are also advantageous financially and administratively and help the RRG remain competitive in the marketplace. Financially, the CF-RRG is able to keep its capital and surplus growing at an aggressive pace. Capital and surplus are very important for an insurance company because of minimum-holding requirements from regulators and also because they form the basis of investment funds. Releasing a dividend directly impacts the capital and surplus of the insurance company, which decreases the ability to make a return on investments. This is a disadvantage. Premium-reduction techniques affect the net profit, rather than reducing the insurance company's surplus, which allows investments to continue to amass at a greater rate. Increasing capital allows CF-RRG to rely more on its investments for profits, increasing the ability to reduce future premiums. Higher capital levels also reduce the need for expensive reinsurance.

By reducing premiums, we can more easily accomplish the reduction programs without affecting the member experience. Administratively, the CF-RRG can continue to place its focus on modernizing the insurance process rather than tracking dividends for each member. We can also reward members who have had no claims, a category that includes the vast majority of affiliates and trainers. This will encourage members to practice better loss control within their boxes, thus improving the likelihood of another decrease in rates as the company continues to mature.

Dividend returns do not have an impact on the competitive marketplace. However, premium reductions will place CF-RRG in a better position. Since inception, CF-RRG has been comparatively more expensive because of its broad and inclusive product offering, but now we can offer the same broad product at a much lower cost without jeopardizing value. For those who shop for insurance based on price and not necessarily



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coverage, CF-RRG is now an even more attractive option. This will lead to higher membership numbers within the RRG, ultimately providing the source for further premium reductions as total premium volumes grow.

Premiums Vs. Fees

As our analysis was conducted, we also looked at the impact of decreasing premiums vs. decreasing policy fees. A fee can be used for administrative expenses or broker's compensation. Premium defines the amount paid to an insurer for bearing the risk described in the policy. Because our members are the owners of the CF-RRG, the total cost of insurance should be primarily premiums—not fees—to maximize the profit sharing available to our members.

Premiums increase surplus and also help fight claims, pay defense attorneys, hire adjustors, allow for investment income and more. Fees do not have these advantages.

Market studies indicate CF-RRG competitors use fees at an alarming rate. Although the CF-RRG administrator charges \$165 per policy, our study indicated that fees of \$250-\$500 weren't uncommon with competitors. This greatly affects the community.

The new minimum premium of \$1,185 was selected so premium plus fee would be \$1,350. We encourage affiliates to compare premium plus fees when they shop for insurance.

What's Next?

Current CF-RRG members will see the cost-reduction programs automatically implemented on their next policy renewal. Keep in mind members who experience a huge amount of growth over the year will still see premiums increase. Even when the rate is lowered, increased revenue affects the total cost.

For example, a box earning \$100,000 in 2013 paid the \$1,350 minimum premium. If it projects to make \$100,000 again in 2014, it will pay the new \$1,185 minimum premium. However, if it projects to make \$400,000 in revenue, the premium would be \$6.96 per \$1,000 of revenue, which is \$2,784 annually (vs. the old rate of \$8.70, which would create costs of \$3,480 annually). Although the total cost increases, the rate has been lowered by 20 percent.

New CF-RRG members will have the same advantages as all other members effective June 1.

One of the primary goals of CF-RRG was to return profit to its members as soon as it was able to do so. As the company continues to grow, premium returns will be analyzed every year. If membership continues to increase, we believe premiums will continue to decrease for the CF-RRG community. The possibility of continually decreasing premiums is one of the primary advantages CF-RRG holds over commercial insurance companies.

For more information visit CrossFitRRG.com.

About the Author

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