

THE CrossFit JOURNAL

April 2014

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THE CrossFit JOURNAL KIDS

Paper Airplane

Paper airplanes plus exercise = happy children!

By Mikki Lee Martin CrossFit Kids

April 2014



Equipment

- Enough sheets of paper for each child to construct an airplane
- Pencils

Set-up

1. Define a 10-meter by 10-meter grid with lines marked every 2 meters. A concrete pad, or a sidewalk with pre-existing lines approximately 2 meters apart, can also be used.

Object

To fly your paper airplane for max distance.

Game Play

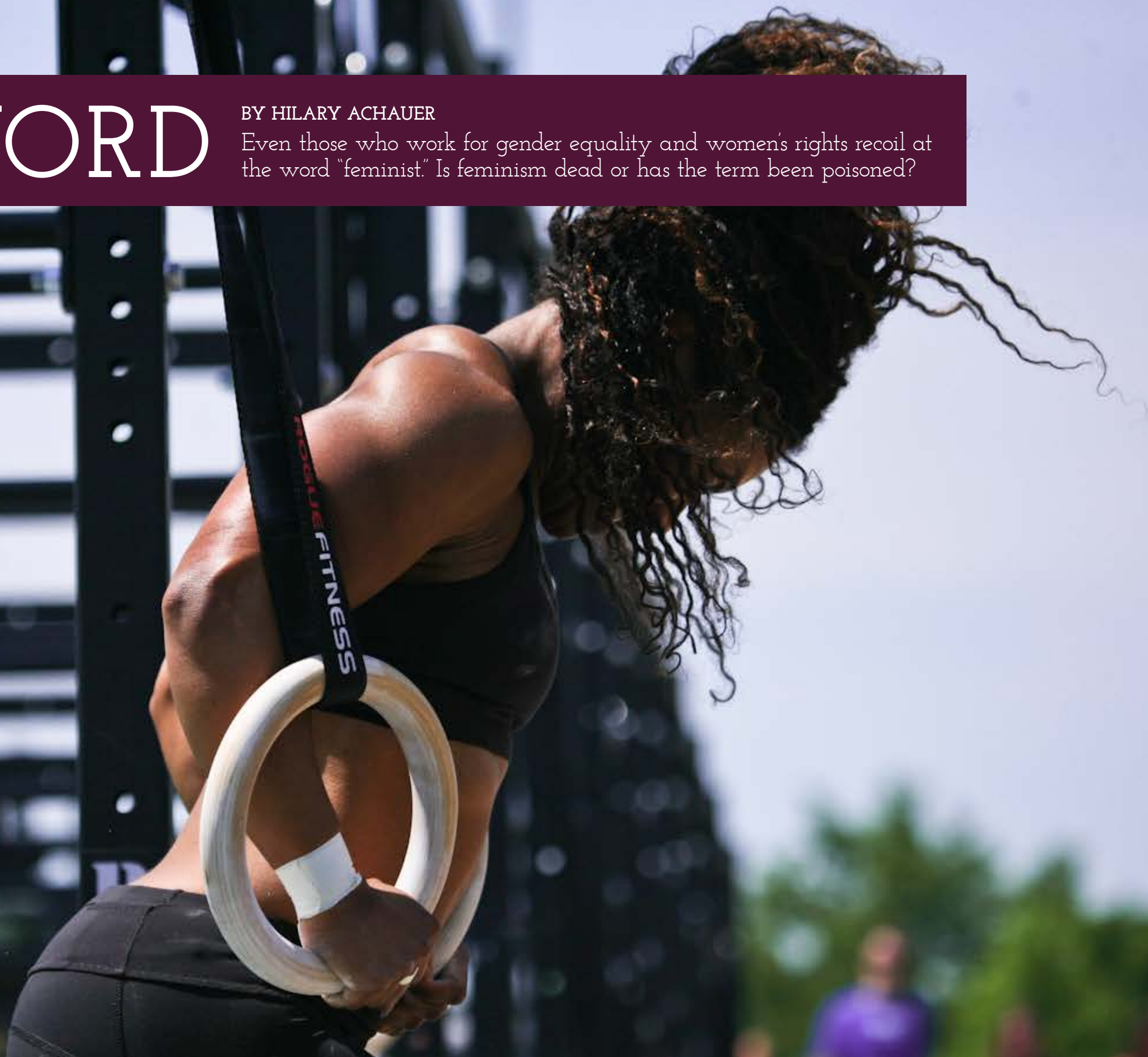
1. Begin class by teaching the kids how to fold and throw a paper airplane. This time can also be used to create extra planes for kids who may struggle making their own. Make sure each kid writes his or her name on a plane.
2. Line the players up behind the first of five lines.
3. Assign a task to each line, and make the tasks progressively easier. For example, the line closest to the start could call for three burpees, while others could call for two push-ups or a squat. The last line is the "master pilot" line and has no exercises assigned to it.
4. Kids take turns throwing their airplanes, and the entire group does the exercises corresponding to the last line the plane cleared before landing. The more distance the planes cover, the less work the kids have to do.
5. Kids who fly their planes past the last line are called "master pilots."



THE F-WORD

BY HILARY ACHAUER

Even those who work for gender equality and women's rights recoil at the word "feminist." Is feminism dead or has the term been poisoned?



"I wouldn't call myself a feminist."

I looked at the strong, intelligent, accomplished woman in front of me. Only 11 years separated us, but at that moment the gulf between us felt enormous.

I'm 40 years old and attended college in the mid-'90s. It was the height of the grunge and riot grrrl movement, an important part of third-wave feminism, which began in the early '90s. At the time, feminism was punk rock. It was cool and it was anti-corporate. It was Doc Martens and flannel shirts, Kurt Cobain and Bikini Kill.

I admit that a big part of the appeal of feminism at the time was that it seemed badass. It was of the moment. It was change and rebellion. Third-wave feminism differed from the second wave—which lasted from the 1960s to the '80s—by emphasizing diversity and more fluid definitions of gender and sexuality. While the goals of feminism remained the same, young feminists started taking back traditional markers of femininity (cleavage, lipstick, high heels) and reclaiming derogatory words such as "slut" and "bitch."

All these years later, as a married mom of two kids, I still consider myself a feminist. I'm in good company—Beyoncé has become very public about her feminism. She wrote an essay for the *Shriver Report* titled *Gender Equality Is a Myth* and sampled a feminist lecture in her song *Flawless*. If anyone can rehabilitate the man-hating, dour reputation of feminism, the gorgeous, sparkly, almost universally loved Beyoncé isn't a bad choice.

But when I bring up the word "feminism" to some of my younger friends, they recoil in distaste.

"That word makes my skin crawl," one of my friends told me.

It's an opinion shared by successful, independent women who believe strongly in gender equality.

How did the word become so reviled?



Through physical strength, many women have found the inner strength to challenge traditional gender roles.

Man-Hating Club

Caitlin Ellinwood is a 25-year-old consultant for one of the Big Four professional-services firms. She provides commercial and federal clients with strategy and operations-related consulting services. She's a young woman in a male-dominated field, and she's a CrossFit athlete who isn't afraid of loading up the barbell and lifting alongside men. She's independent, intelligent and opinionated. Just don't call her a feminist.

"The idea of feminism on paper is great," Ellinwood said. "Equality is important. I don't think women should be subordinate to men."

However, she thinks the word "feminist" has been, as she said, "bastardized." She feels feminists are overreaching.

"They want more than just equality for women. The extremes of feminism alienate the male gender," Ellinwood said.

As feminism gathered steam in the 1980s and '90s, some men felt women were gaining equality but weren't revoking their traditional feminine privileges. Activists for men's rights pointed to the economic burdens on men, as well as inequality in laws governing divorce, custody and abortion. When Ellinwood recoils from the word "feminism," she's reacting to the idea that feminists are alienating men and trying to tip the scales the other way.

Her biggest problem is the way she thinks feminists identify themselves.

"It's like a woman cult, that's the way it's perceived in society," she said.

"It's like The He-Man Woman Hating Club from *The Little Rascals*," she said, but in reverse.

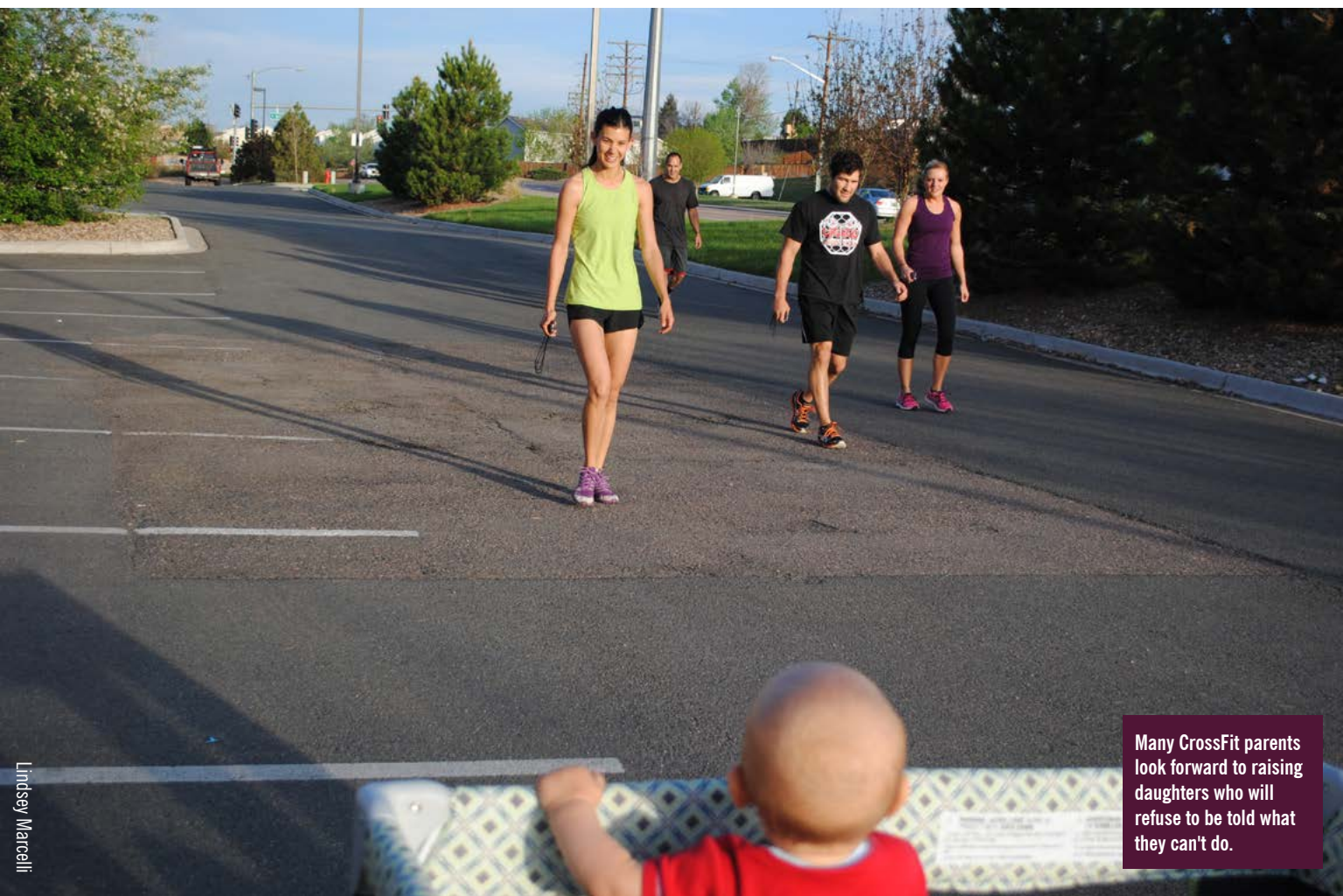
However, when asked if she thinks there is gender equality, Ellinwood doesn't hesitate: "I don't feel there is gender equality. Absolutely my gender works against me."

"I don't feel there is gender equality. Absolutely my gender works against me."

—Caitlin Ellinwood



Appearance says little about politics. What should a "feminist" look like?



Many CrossFit parents look forward to raising daughters who will refuse to be told what they can't do.

She said her natural state—warm, happy and bubbly—sometimes makes it hard for her to be taken seriously. She believes it would be easier to just act like a bitch; that would earn her more credibility.

It's not a problem young men have to confront. As this [Pantene ad](#) points out, one man's boss is another woman's bossy.

It's the adjustments women are forced to make that form the patchwork of gender inequality. The speech Beyoncé samples in *Flawless* is *We Should All Be Feminists* by Nigerian author Chimamanda Ngozi Adichie. In it, Adichie talks about when she was preparing to teach a writing class in graduate school for the first time.

She was nervous, not because she didn't know the material but because she was worried about what to wear. Adichie wanted to be taken seriously, and she worried that if she looked feminine her students wouldn't respect her. She really wanted to wear her shiny lip gloss and her girly skirt, but Adichie decided to wear a serious, manly and, as she said, "ugly" suit.

"Because the sad truth is that when it comes to appearance, we start off with men as the standard, as the norm. If a man is getting ready for a business meeting, he doesn't worry about looking too masculine ... if a woman is getting ready she has to worry about looking too feminine," Adichie said in her talk.

Adichie said she wishes she had not worn that ugly suit, and she has since banned it from her closet.

"I have chosen to no longer be apologetic for my femaleness and my femininity," Adichie said.

Rather than dress like a man to be taken seriously, Adichie decided to reject the notion that feminine equals frivolous.

First a Mom

Lisette Islas, a 38-year-old nonprofit consultant, said she considers herself a feminist, but she understands why some people have trouble with the word.

Islas studied at the University of California, Berkeley from 1993 to 1997. It was at the progressive, liberal haven that Islas said she found her identity as a feminist. It was also where people began telling her what she could and could not do as a feminist.

"People told me you can't be a feminist if you like to wear makeup," Islas said. "You can't be a feminist if you wear heels."

She said many feminists she encountered had a specific idea about what it meant to be a feminist, and if you didn't fit that image, you weren't a true feminist.

The sad irony is that the fight for gender equality was started by women who chafed against the confines of traditional female roles. The brave women of first-wave feminism challenged the social norms and fought for basic civil rights, such the ability to vote and own property. Feminism was built on challenging the status quo, but even at Berkeley, Islas felt that she was being told what her role as a woman should be.

There's a deeper, darker issue lurking here, and it's the linking of a woman's appearance with her politics. The second wave of feminism, which lasted from the 1960s to the 1980s, may have led to some narrow ideas about what a feminist should look like, but it also resulted in the Equal Pay Act of 1963, Title VII of the Civil Rights Act of 1964 (outlawing major forms of discrimination against racial, ethnic, national and religious minorities and women), and the Women's Educational Equity Act of 1972 and 1974, to name just a few.

Yet when many think of feminists, what do they picture? Bra-burning, man-hating women who disapprove of heels and makeup. Not the brave women who fought for the vote, the right to own property, educational equality and reproductive rights. A woman's appearance should not have anything to do with her politics.

"I like wearing heels," Islas said. "They make me feel taller. I don't wear them for a man."

As Adichie said in her speech, "The problem with gender is that it prescribes how we should be, rather than how we are."

"Feminism is not about man-hating," Islas said. "It's about equality."

—Lisette Islas

Islas said she became less political after college, but she started to think more about gender politics after the birth of her daughter, now 2, when she became a working mom.

“I felt like I had to choose between being a good mom and a good worker,” Islas said. She told the story of a boss who came by her desk at 5 p.m. one night, patted her on the head and said, “You’ve got to be home now. You’re a mom.”

Islas had never heard him say anything like that to her male coworkers with children.

However, despite the sometimes-negative connotations of the word, Islas is still proud to call herself a feminist. As a Mexican-American woman, she also has to think about her ethnic identity, but she most often identified herself first as a woman, and then as a Chicana or Mexican-American.

That all changed after the birth of her daughter.

“Now I’m first a mom,” she said. “I think a lot about how I’m going to expose (my daughter) to a lot of things ... so she doesn’t feel boxed in.”

And that’s why Islas identifies as feminist. She believes strongly in making sure her daughter has a world of options available to her, from how she dresses to her career choices.

“Feminism is not about man-hating,” Islas said. “It’s about equality.”

Speaking Out

When the first-wave feminists of the early 20th century dreamed of future equality for women, they probably didn’t dare to hope for someone like 28-year-old Fiona McFarland.

A graduate of the Naval Academy, McFarland is a surface-warfare officer in the Navy who is headed to work in the public-affairs office in the Pentagon. She’s a fierce CrossFit athlete who out-lifts most of the men in the gym. McFarland is intelligent and thoughtful and keenly aware of her position in a male-dominated world. But don’t call her a feminist.

McFarland said she does not consider herself a feminist and feels there are too many negative connotations of the word.

“The whole bra-burning and women wearing shoulder pads to look like men—there’s a lot of anger associated with the word,” she said. “Gender equality means more to me.”

McFarland said gender equality is always on her mind, and it’s been a hot topic in the military since the ground-combat

exclusion was rescinded in January 2013, allowing women to occupy select positions in ground-combat units.

McFarland recognizes the trail blazed by those before her.

“I have been in the Navy almost six years, and there is more gender equality than there was (when I started),” she said.

She added: “Some of the women who are role models (to me) were not available to women a generation ahead of

me. Women have only been allowed to serve on surface combatants since the late ’80s. In the early ’90s, the generation before me, they didn’t have anyone to turn to.”

She said she thinks the Navy is a kinder and gentler place than it once was. She knows gender equality has not been achieved, “but all the right things are in place to get us there.”

*“This word has become
poisoned.”*

—Fiona McFarland



CrossFit.com does not prescribe a “women’s weight.” Women can choose what to lift, and many can beat male counterparts using the same loads.

Amanda Ryan

McFarland knows there's still work to be done. The evidence is right in front of her.

She recalled a recent day in which 40 people, including McFarland herself, received orders to help bring ammo aboard a ship.

"There were five women out of the 40," McFarland said. "All the women were put in a position to sit and watch, not carry any ammo. It occurred to me that the women were put in useless positions."

What McFarland did next says a lot about her gender politics regardless of how she labels herself.

"I made a complaint. I brought it up," she said. "And a lot of the men supported me, they said, 'Lt. McFarland, she's stronger than a lot the guys on the crew.'"

And that's how the fight for equality has progressed over the years. Someone notices an injustice, steps forward and says, "This is wrong. It needs to change."

McFarland acts like a feminist and talks like a feminist, but she simply does not consider herself a feminist.

"This word has become poisoned," McFarland said. "Maybe language has evolved. I don't love that there is negativity associated with the word."

The Future of Feminism

So what to do about a word that is so divisive and unappealing to young women who believe strongly in gender equality?

Some people are trying to reclaim the word. In an interview with *Glamour* magazine, Zooey Deschanel bristled at the idea that feminists have to look and behave a certain way.

"We can't be feminine and be feminists and be successful?" she asked. "I want to be a fucking feminist and wear a fucking Peter Pan collar. So fucking what?"

It's also worth examining where the negative connotations came from. It could be that a society uncomfortable with women gaining full equality—fighting on the front lines and running corporations and countries—sought to demonize the word.

From the first days of feminism, women fighting for equal rights have been called anti-family, anti-men and anti-God. The anti-feminism rhetoric gathered steam in the early 1990s, when Rush Limbaugh began using the term "feminazi." Since then, Limbaugh has worked hard



Lindsey Smith

Pictures such as this have raised debate on CrossFit.com but reflect a new functional aesthetic.



Theo Tsakouras

Mothers, daughters, sisters, wives: in a CrossFit gym, all are simply "athletes."

to poison the word. In May of 2013, he posted a radio transcript to his website titled *Have We Defeated Feminism?* In talking about the state of feminism in 2013, Limbaugh said, "One person has been shouting from the rooftops warning about this movement. It is I, El Rushbo, and it might be said that I have succeeded in stigmatizing it."

Anti-feminists may have succeeded in prejudicing people against the word feminism, but the plan seems to have backfired, because what struck me from talking to young women about feminism is that none of them were blind to the inequality around them. They were well aware about the progress that had been made and the work that needs to be done.

While I still feel strongly it's important to reclaim "feminism," it not longer disturbs me that so many young women dislike the word.

Can a movement exist without a name? Future generations of women, perhaps the daughters of third-wave feminists, may reclaim the word with pride. Until then, even if many young women aren't talking the talk, they are walking the walk and continuing the fight for gender equality. ■

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-boxer-turned-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

THE CrossFit JOURNAL

No Results Found

The word “feminism” has been poisoned, but no replacement exists. Lisbeth Darsh asks why.



Column

By Lisbeth Darsh

April 2014



Michael Brian

“One question liberal feminists would do well to ask themselves is why most American women today reject the label ‘feminist.’” —Sarah Palin

If “feminist” is such a tainted word, what word do we use now?

“I think feminist has been given a bad name. ... I think any label is bad. ... I’m more than a label. I don’t want to be labeled

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anything." Governor Nikki Haley (R-South Carolina) said this in 2012, and who could disagree with her? Many people don't like labels, and "feminist" has turned into what Haley calls a "hard word." Numerous people simply don't want to use it.

But if equality of the sexes has not been achieved, we still need a word to describe "a person who advocates equal rights for women." What do we call those people who don't think women should take a back seat, a second place or a lower rung on the ladder because we have vaginas and breasts? What word should replace "feminist"?

I went to Thesaurus.com and other sites for a synonym for "feminist" and repeatedly received this answer: "No results found." How can a word that's been in use since 1895 not have a synonym? It's just a derivative of the French word "feminisme," yet no other word is considered close in meaning. We had only one word, and now it's sullied. As Sarah Palin said, "One question liberal feminists would do well to ask themselves is why most American women today reject the label 'feminist.'"



David Brewer

"I don't subscribe to patriarchy, and I don't think it should be substituted with matriarchy. I think it's a question of equitable access, and opening doors to all sorts of things." —Toni Morrison

What to do? Should we work on getting the stain out of our linguistic dress? Can we cleanse the term? After all, this is a word that morphed over 30 years from a 1974 Badge of Honor to a 2014 Mark of Anger. It's a term so capable of stirring emotion that Pat Robertson at the 1992 GOP Convention said, "The feminist agenda is not about equal rights for women. It is about a socialist, anti-family political movement that encourages women to leave their husbands, kill their children, practice witchcraft, destroy capitalism and become lesbians."

Robertson might be a whack job, but that's some strong language, and The Little Noun That Could seems to have turned into The Little Noun That Didn't Know When to Shut Up.

Even Nobel Prize winner Toni Morrison (whom some would regard as a liberal) isn't a fan of her work being labeled "feminist." Responding to the question "Why distance oneself from feminism?" posed by *Salon* magazine in 1998, Morrison said, "In order to be free as I possibly can, in my own imagination, I can't take positions that are closed. ... I don't subscribe to patriarchy, and I don't think it should be substituted with matriarchy. I think it's a question of equitable access, and opening doors to all sorts of things."

When Rush Limbaugh started bellowing about "feminazis" in 2004, it was probably the last nail in the feminist coffin for many people. Homicide, witchcraft and Nazis? Magic trifecta. No one wants to join that club, except the sort of people you steer your cart away from in the supermarket.

No wonder there's no synonym for "feminist." Our wars of political rhetoric would just burn it down, too. This is why we can't have nice things.

Is this just a case of women again being told what's best for them? Some men don't like the word, so their women don't like the word. Maybe things have not turned out exactly how Susan B. Anthony and Elizabeth Cady Stanton imagined when they were marching around in long dresses and getting arrested and attacked while procuring women's right to vote in America.

Or maybe things turned out better than those suffragettes of long ago imagined. Much of Western society now assumes men and women should have equal rights. The issue is no longer up for debate, so perhaps we don't need a word that describes supporters for the concept. Even if Michele Bachmann says Americans "aren't ready" for a female president, others would argue it's time for the "Mission Accomplished" banner to be hung on the equal rights debate.



CrossFit women often compete head-to-head with male athletes, but many still reject the word “feminist.”

But even if that is true, it feels like a hollow victory, as if equality of rights for women is considered a done deal and no one should talk about the numerous gender issues we still have, such as a [rape culture](#) that devalues women and emboldens young men to commit crimes such as the [Steubenville rape](#) and numerous other incidents across America. If equality of rights really exists, why do we have a [gender pay gap](#) in numerous [countries](#), wherein women are paid less for the same work as men?

And if everything is OK in the world, why are the female images in stock photos such [old-fashioned stereotypes](#), and why do toy companies market to little girls with products that support the idea that women are [here to serve and care](#), not engineer and lead? Unfortunately, those seemingly innocent choices and a [lack of female role models](#) can later affect education levels, salary and career trajectory for these same girls.

If you really stop and look, you might think, “Wow, gender issues are still everywhere.”

Gendercide is a reality in China and India and other nations. Girls are so devalued in some countries that a mother will poison her own newborn daughter rather than burden her family with a child who will earn lesser wages than a boy and cost the family money in a dowry. Think about that for

a moment: Mothers would rather kill newborn daughters than raise them. Horrifying, right? Yet it’s an accepted act in parts of our world.

These realizations might stir the urge in you to fight for true equality of women everywhere rather than settle for current gains. They might make you want to be a ... a what?

There is no term to replace “feminist.” No results found.



About the Author

Lisbeth Darsh is a writer and editor for CrossFit. She also blogs regularly at [Wordswithlisbeth.com](#).

THE CrossFit JOURNAL

Class-Action CrossFit

Rancho High School in Nevada started using CrossFit for P.E. in 2010, and the success of the program now has 10 other schools following suit.

By Laura Bruner

April 2014



Michelle Van Buren

Just outside the bright lights of the Las Vegas Strip is Rancho High School, where 61 percent of the students are eligible for free or reduced-price lunch.

Nevada has the third-lowest graduation rate in the United States, and to help change that, Rancho High receives federal funding assistance due to Title I status. But it wasn't until a P.E. teacher decided to bring CrossFit into her classroom in 2010 that real change occurred.

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A year prior to Michelle Van Buren's first CrossFit P.E. class in 2010, the school's graduation rate was at 50 percent. In the three years since, that number has gone up to 58 percent. The change has not gone unnoticed by parents, teachers, counselors and members of the community at Rancho High School.

In 2011, when the federal government awarded the high school US\$1 million through the School Improvement Grant, some funds were allocated to the CrossFit program to help pay for training and equipment. Van Buren had already built a successful program with CrossFit, and administration saw a need for the affiliate to grow at the school.

Rancho CrossFit eventually became a fully functioning nonprofit affiliate equipped with a pull-up rig, barbells and plates.

No Detentions Required

Rancho CrossFit is housed in a small room at the back of the school. The room is immaculate, the equipment is well cared for, and the workout for each day of the week is written up clearly.

Van Buren teaches five CrossFit classes each day, and after three years of CrossFit-only P.E., the need for discipline in her classes has vanished. The students are on time for class and attentive. They love being there and sometimes come to school solely so they can go to CrossFit.

"When I come here, I get to escape every stress I have going on in life, work out and be with my friends."

—Eddie Calahan

"I don't even have to instruct them at the start or finish of class anymore," Van Buren said. "They get on each other's case if any equipment is left out or mistreated. They are proud of this class and happy to be here."

Van Buren's CrossFit class has a waiting list, as she can only handle so many in each session. The students who are able



Michelle Van Buren

After developing their skills in P.E., some of Van Buren's students competed in the Teen Gauntlet in Los Angeles, Calif., in 2013.

to attend said they feel fortunate to be there—which is obvious when the bell sounds.

"I wait all day for CrossFit class," said student Eddie Calahan. "When I come here, I get to escape every stress I have going on in life, work out and be with my friends."

Tyler Aitken, another student in Van Buren's class, said he frequently gets a pass out of seventh-period science to come back for a second CrossFit class.

"If I can get all my work done, my teacher will write me a pass to come back to Coach Van Buren's CrossFit class," Aitken said. "I love being here because it gives me energy and I get to work out with my friends."

As someone who never enjoyed or excelled in traditional P.E., Aitken said he's found a place at Rancho CrossFit. And he's flourishing.

Van Buren, the lone coach at Rancho CrossFit, said it's students like Aitken who make all the hard work worthwhile.

"I teach five classes throughout the day and then stick around for CrossFit club after school," she said. "Once the hour for club is over, the kids always stick around. They don't really have anywhere to go, and they have found a home here."

Van Buren also devotes several weekends a year to travel to various local competitions the kids can participate in. And with the CrossFit Games Open underway, Rancho CrossFit has 18 students testing their fitness.

"We have been waiting for this for over a month," junior Francisco Rangel said of the Open. "I love CrossFit. When I work hard in here, I see it pay off. Someday, I want to be like Jason Khalipa."

During Open Workout 14.1, the room was filled with excitement and high energy.

"They push each other to be their very best," Van Buren said. "They want to be role models for each other, and they aren't afraid to coach each other in every workout."

The Payoff

Rancho High has experienced a shift in priorities: The members of Rancho CrossFit work hard not only in the gym but also in academic classes.

**"I love CrossFit. When I work hard
in here, I see it pay off."**

—Francisco Ranger

"I like to think of my assignments like they are a CrossFit workout," said Elijah Abram, senior and Rancho CrossFit Club president. "It has helped me a lot with my mental strength and not being lazy."



Michelle Van Buren

A CrossFit P.E. program focuses on sound basic movement mechanics, giving students the tools to maintain and improve their fitness throughout their lives.

These blurred lines between fitness and academics have many parents and teachers believing CrossFit is having a positive effect on graduation rates, attention spans and overall discipline at Rancho High.

**“I like to think of my assignments
like they are a CrossFit workout.”**

—Elijah Abram

“When I was a sophomore, I was getting some A’s, mostly Bs and a few Cs,” Abram said. “But since I started CrossFit, I am getting all A’s, and I will be going to the University of Utah in the fall and studying physics to eventually go to (medical) school.”

The desire to help others through medicine stemmed from his new love of CrossFit. After learning about a healthier lifestyle for himself, Abram encouraged his mom to try a

few new things. Due to some disabilities, she has a hard time doing physical activity.

“Elijah did some research and has put her on the Zone Diet,” Van Buren said. “I think she lost between 20 to 30 lb. because of it.”

Getting Everyone on Board

Teachers and administrators are slowly coming around as they notice a change in students’ attitudes.

Last year, Clark County, home to Rancho High, was awarded a Community Transformation Grant of \$2.4 million. In a district that continues to receive government funding to improve numbers, word is spreading about the success of Rancho CrossFit. Now, 10 other schools are using grant funds to implement CrossFit.

Van Buren will be providing support to help the program grow across the district.

“Who knows?” she said. “Maybe next year we can have the whole district come together to compete in the Open.”



About the Author

Laura Bruner works for CrossFit Inc. to bring CrossFit and education together through her work with schools, teachers, administrators and affiliates. She also is a trainer on CrossFit’s Level 1 Seminar Staff and a coach at NorCal CrossFit in San Jose, Calif. Email Laura@CrossFit.com with questions or thoughts about CrossFit and education.



Courtesy of Michelle Van Buren

**Michelle Van Buren poses with her athletes at the 2013
CrossFit Teen Gauntlet in Los Angeles.**



Ariel Hammon, wives Helen and Lisa, and nine of their 10 children watch TV in 2008 in their house in Centennial Park, Ariz.

I THEY WED

POLYGAMOUS MEMBERS OF UTAH CROSSFIT AFFILIATE EXPLAIN THEIR CONTROVERSIAL VIEWS ON PLURAL MARRIAGES. **WRITTEN BY CHRIS COOPER**

ONE MAN'S SIN IS ANOTHER MAN'S COMMANDMENT.

Though illegal, polygamy is still practiced in Utah, Arizona and other small pockets of the United States. Driven from the public eye, plural marriages are often the subject of scorn and always under legal suspicion.

Though most polygamous groups are Mormon, they've been disavowed by their own church and call themselves Fundamentalist Latter-Day Saints (FLDS) or other names. They still follow the teachings of the *Book of Mormon* and Joseph Smith, including his most infamous revelation: recommended marrying of multiple wives. But not all polygamous groups are the same.

"When we get publicity, it's always negative, and everyone always thinks that it's basically the same religion," said Lorin Zitting of the Works of Jesus Christ Church. "Everyone thinks that there's child abuse or underage marriage in polygamy. That's not a part of polygamy. It may be a part of some extreme versions of polygamy."

In addition to polygamy, Smith instructed Mormons to take care of their bodies, as well as their souls. Polygamous families in Southern Utah have followed his instructions, they believe, in the best possible way, and the desire to care for the body as a vessel for the soul has led Lorin and his two brothers, Roy and Allen, to CrossFit.

UNITED BY COMMON GROUND, DIVIDED BY MOUNTAINS

"There's no such thing as a fundamentalist Mormon." — Elder M. Russell Ballard

Smith officially founded the Mormon Church in 1830, and his doctrine stressed that Latter-Day Saints (LDS) members should maintain a personal dialogue with God. Predictably, this has led to private commandments and revelations that can contradict one another, as well as shifting doctrine catalogued in the **Book of Commandments**.

On July 12, 1843, Smith received a revelation from God that created two new Mormon practices: baptism of the dead and polygamy. The second, Smith said, was not only permissible but in certain cases required. Mormons were immediately divided by the pronouncement. Not surprisingly, Smith's wife was against the idea. One of Smith's lieutenants, Brigham Young, stated he would rather die, though his tune would later change and he would eventually accumulate more than 50 wives. Smith's wife, Emma, was soon ordered expressly by God—through another revelation—to accept polygamy.

The practice of plural marriage ostracized the young church from other churches and the majority of the American public. Chased west by anti-Mormon protests, brawls and shootouts, Young led the Latter-Day Saints to Utah after Smith's death.

The barren landscape sheltered early Mormons from the dangers left behind, including the U.S. Army and the judgment of other churches. Here, they multiplied—and divided.

Although both Smith and Young, his eventual successor, were practicing polygamists, the modern Church of Jesus Christ of Latter-Day Saints has banned the practice. Mainstream LDS followers officially renounced polygamy on Oct. 6, 1890. Wilford Woodruff, then president of the LDS, issued a **manifesto** that the church ratified to conform to the laws of the United States. Official Declaration 1 of the LDS begins, “The *Bible* and the *Book of Mormon* teach that monogamy is God’s standard for marriage unless He declares otherwise.”

Mormonism is among the **fastest-growing** religions in the world, with followers of the LDS faith numbering in the tens of millions. Fractious groups, calling themselves “Fundamentalist” Mormons, have split from the main body and each other dozens of times.

The splits are caused by disagreements over the finer points of Mormon doctrine, interpersonal conflicts and sometimes the voice of God. Occasionally the breaks are violent. And no principle of the church has been more divisive than polygamy: the practice of “plural” marriage. In other words, two girls for every boy. Or more.

NO PRINCIPLE OF THE CHURCH HAS BEEN MORE DIVISIVE THAN THE PRACTICE OF POLYGAMY.

Polygamy has been illegal in the United States since the **Morrill Anti-Bigamy Act of 1862**. Few have ever been prosecuted under the law. Abraham Lincoln signed the act but didn’t allocate any funds for enforcing the law in Utah.

He was worried the LDS would become involved in the Civil War—against the Union—and famously compared the Mormon church to a log he’d encountered on his farm: “Too hard to split, too wet to burn and too heavy to move, so we plow around it. That’s what I intend to do with the Mormons.”

In general terms, polygamy is a marriage with two or more partners, while bigamy is the criminal act of marrying one person while still legally married to another. Anti-polygamy laws were among the first tests of the *Constitution’s* protection of religious freedom. The Free Exercise Clause of the First Amendment states, “Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof.”

When polygamist George Reynolds took the practice of polygamy to the Supreme Court in 1878, it **ruled**, “Laws are made for the government of actions, and while they cannot interfere with mere religious beliefs and opinions, they may with practices.”

In 1882, anti-bigamy laws were given teeth by the Edmunds Act, which prohibited “unlawful cohabitation,” removing the need to prove that multiple formal marriages had occurred. The act made cohabitation between two people of the opposite sex a misdemeanor, and 1,300 LDS men were imprisoned. No others living in cohabitation in Utah at the time were imprisoned; LDS members were clearly targeted. In 1896, following the Mormon Church’s polygamy ban, Utah was finally admitted to the Union on the condition that polygamy would forever be prohibited in the state.

The Edmunds Act was tested in 2012 by Kody Brown and his four wives, made famous by the television show *Sister Wives*. Brown won, and cohabitation in Utah was decriminalized. In an essay in **The Washington Post**, lead counsel Jonathon Turley quoted Judge Clark Waddoups as saying the courts today are “less inclined to allow majoritarian coercion of unpopular or disliked minority groups, especially when blatant racism ... religious prejudice, or some



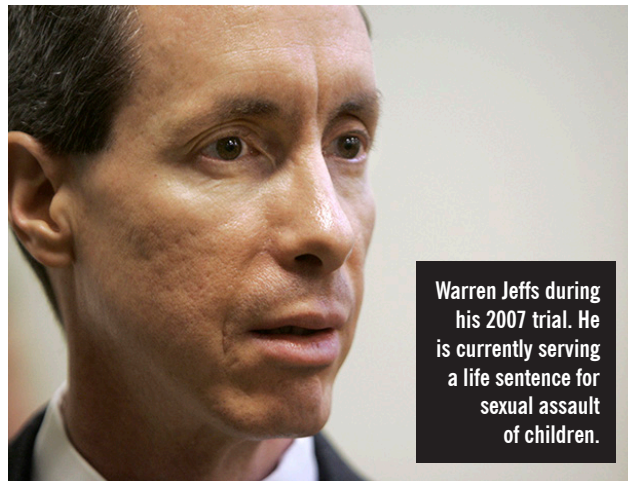
other constitutionally suspect motivation, can be discovered behind such legislation.”

The ruling means a person can only be charged with bigamy if seeking multiple marriage licenses. Because marriage licenses aren’t sought for “celestial marriages,” as they are called, no laws are broken, according to Waddoups. Joined under God but not under law, women in celestial marriages in Utah are recognized as unwed mothers, and social benefits are extended accordingly.

THE EXTREME END OF THE SPECTRUM

In any situation, fringe groups often achieve disproportionate notoriety, and when it comes to polygamy, the Jeffs family, in particular, has faced public outrage for decades.

Beginning with Rulon Jeffs, called “Uncle Rulon” by members of his FLDS sect, the family tradition of repression and intermarriage has been well documented. Rulon’s son Warren took up the mantle upon his father’s death in 2002. In 2011, Jeffs was convicted of aggravated sexual assault and sexual assault of a child, and he’s currently serving a sentence of life plus 20 years. He still controls his FLDS church from inside the walls of prison near Palestine, Texas.



In 1986, the Zittings’ group broke away from Jeffs’ family. “It was Warren’s dad—he was one of the priests of council, and there was a dispute over doctrine. Half the group went this way, half the group went the other,” said Roy. Some of his older half-sisters are still members of Jeffs’ group.

Believing they’re upholding the true will of God, some polygamists maintain they’re not accountable to “worldly”

laws. Some are prepared to die for their beliefs. A few have killed for them.

In 2003, a 911 operator received a late-night call from a truck stop in Northern Utah. The young girl on the line told a horrific story: She was fleeing an uncle who had “married” her at the age of 16. On previous attempts to run away, she had been caught and whipped by her father. Then another story, barely a year later: Thomas Arthur Green, another Utah polygamist, was charged with bigamy and felony rape of a child.

“WE BELIEVE THAT THIS IS
HOW GOD LIVES.”

—ROY ZITTING

In 2002, Ruth Stubbs—19 and pregnant with her third child—fled the compound of Rodney Holm, her husband since the age of 16. Holm was also married to Stubbs’ older sister and worked as a police officer nearby. Elizabeth Smart was abducted at knifepoint when she was 14 to become the “celestial wife” of Brian David Mitchell. Held captive and sometimes chained to a tree close enough to hear search parties calling her name, Smart was eventually brainwashed to become a compliant concubine. She was rescued when a passing motorist recognized Mitchell from an episode of *America’s Most Wanted*.

Some groups, such as Jeffs’ clan, remain hidden by choice. Slowly shrinking, the group continues to fragment, and Jeffs’ followers have trouble recruiting new wives.

According to Jon Krakauer in *Under the Banner of Heaven*, there are more than 30,000 Mormon polygamists living in North America, which is less than 1 percent of worldwide LDS membership.

“You have to understand in Utah there’s probably 20 different groups of FLDS. There’s one group that gets the spotlight—Jeffs’—and everybody tends to group us all together,” Roy said.

Pursued by the law, condemned by the public and sensationalized by media seeking to capitalize on a social oddity, polygamists are usually forced to hide their beliefs. Children of plural marriages are ostracized by their peers. So why do it at all?



Roy Zitting has the answer:

“We believe that this is how God lives, and we believe that we can become gods, and we’re going to have to learn to live that way if we’re going to.”

ONE MIGHTY AND STRONG

“And it shall come to pass that I, the Lord God, will send one mighty and strong ... to set in order the house of God.”—*The Doctrine and Covenants, Section 85*

Roy has more in common with the average CrossFit athlete than with the polygamists shown on television: he wears sweatpants and Under Armor, works at a construction company and drinks alcohol.

He loves deadlifting, he’s learning to love double-unders, and he wants to be free to practice his own religion without persecution. He believes in polygamy but doesn’t want his Works of Jesus Christ church lumped together with the FLDS, and he’s eager to unravel the tangled belief system that’s confusing even to some Mormons.

Even in the small 5:30-a.m. group at CrossFit 435 in Hurricane, Utah, different values within the Mormon church are on display. Owner Ryan Wright is a practicing Mormon who’s never tasted alcohol but blasts uncensored rap during the workout.

Though describing himself as fundamentalist, Roy and his family are looser on rules about drinking than most mainstream Latter-Day Saints.

“We’re trying to purify our body and soul,” said Roy. “We believe in moderation.”

“LDS says absolutely no alcohol, no caffeine. But they can hit Diet Coke as hard as they want, and that’s worse for you than alcohol,” he said. “We believe in trying to maintain a balance. Sure, have a drink, but don’t get hammered. If you’re going to get drunk, do it once a year at New Year’s or something. But sure, have a glass of wine with dinner.”

Different groups, Roy said, are tougher or looser on different parts of Mormon doctrine. Drinking for most LDS followers is a no-no, but swearing might be OK.

“Last night, (the stereo in the gym) was dropping the F-bomb, and some of the guys are LDS, looking around like, ‘Is someone going to stop that?’” Roy said.

In comparison, Roy said the Works of Jesus Christ church is more relaxed about drinking and swearing.

“OUR BODIES ARE SACRED TO US. THAT MEANS WE TRY TO KEEP THEM FIT.”

—ROY ZITTING

“We’re probably more open-minded than most polygamist groups. If someone from Warren’s group got caught working out down here (at CrossFit 435), they’d be kicked out (of Jeffs’ group). It’s devilish music, or something, I don’t know. He’d find a reason. He’s a control freak.”

Underneath Roy’s gym clothes are the long sleeves of the “Mormon garment,” a long-limbed set of underwear some Mormons wear at all times.

“We try to stick to the fundamental principles of Mormonism. That’s why the long sleeves,” Roy said after the workout.

“Mormons believe in being ‘in the world, but not of it,’ and the garment helps in privately yet consistently setting temple-going Mormons apart from the world,” according to the ldschurchtemples.com website.

“We all wear the same—we call it ‘the five bones,’” Roy said.

“Here, here, here,” he said as he pointed to fabric poking out near his collarbone and wrists, “and ankles to keep ourselves covered.”

Zitting’s family believes their bodies are the image of God. As such, they prioritize health and fitness.

“At least with our community, our group, we’re physically fit. We believe that you get one chance, one body,” Roy

said. “We believe in keeping our bodies covered. Our bodies are sacred to us. That means we try to keep them fit, eat right, no tattoos, no piercings.”

It also means respectful dress in a more conventional sense: the long dresses and bonnets customary to some FLDS groups aren’t part of the Zittings’ wardrobe.

“I BELIEVE IN EVERYBODY’S RIGHT TO LIVE THE WAY THEY WANT TO LIVE, NOT JUST MY OWN.”

—LORIN ZITTING

“I’ll go through Walmart and there’ll be one of Warren’s group going through the cash register next to me—this has happened—and the woman checking me out will say, ‘Those polygamists, I can spot them anywhere.’ So they do group us all together,” said Roy.

“The myth is that everyone that’s practicing polygamy is the same group or (has) the same ideas,” Lorin said. “Everyone that doesn’t understand something tends to group people together like that.”

Lorin and Roy each have one wife—for now. Both insist they’re not out seeking other women. But they’re both leaving the door open. Though central to FLDS doctrine, polygamy isn’t the focus of Roy’s faith.

“Polygamy’s not going to save you. You have to do the character work. It’s not just marrying some girl, you know. I think a lot of people do it for the wrong reasons,” he said. “Maybe peer pressure: their dad does it and they want to be like him. They’re born into it so they just do it too.”

FAMILY TIES

Polygamy is a flashpoint topic, but other values, such as the belief that hard work builds character, are far less controversial. Roy learned about work ethic as a child: His father struggled to feed his large family but wouldn’t accept welfare. When a neighbor traded them a block of “welfare cheese” for bread, his father threw it away.

“He didn’t want any part of welfare or government aid. He said, ‘If you can’t afford more kids, don’t have them,’” Roy recalled.

Roy’s family owns a large construction company, and with its growth came more time behind a desk. That led Zitting to CrossFit 435. Roy’s wife doesn’t do CrossFit as often as he does because they live 40 minutes away, but he says she’d come more often if it was closer. Roy is willing to work hard to achieve physical and spiritual fitness, and while he may not refer to his workouts as “heavenly,” he can certainly understand why many who follow the CrossFit doctrine refer to other members as their “gym family.”

Members of a gym, though, can cancel a membership if they want to quit. How does anyone—especially a woman—leave a polygamous family? And why join one in the first place?

“Nobody’s forced to do it,” Roy said.

“If there’s anyone who is unhappy, we’re happy to help them get out. The women that don’t want it, they’ll leave. It’s not like we try to force it on anybody,” echoed Lorin, whose first wife left him because she didn’t want to be part of the religion. The two are still friends and split time with their kids.

“I’ve done everything I can to help her go be what she wants to be. It’s not for everybody. I believe in everybody’s right to live the way they want to live, not just my own,” Lorin said.

“I CAN’T BE OUT CHASING GIRLS OR YOU’RE GOING TO MESS UP THE FIRST RELATIONSHIP.”

—ROY ZITTING

He added: “I loved that girl. I still love her.”

Lorin started CrossFit after his divorce and credits the workouts with helping him cope with the separation. Now remarried, he and his new wife will continue in the polygamous tradition.

“I married somebody that’s committed like I am. She’s committed to the religion. She feels the same way I do,” he said.

This commitment must be stronger than laws and base human emotions such as jealousy. Lorin credited an





Chris Cooper/CrossFit Journal

Roy Zitting (third from right) enjoys burpees as much as any other athlete.

emphasis on personal responsibility that's reinforced by his church, and he said that multiple marriages aren't simply part of the pursuit of a more diverse sex life.

"With us, it's about family. We're committed to our relationships wholeheartedly," he said.

The experience of dealing with multiple relationships at once, though, isn't an easy one. In some FLDS communities, womens' opinions aren't considered. But in Lorin's family, everyone's personality is active in full force.

"Tell me how hard you think it would be for you and your wife to have a relationship with another woman," he said. "For a guy, you could never do anything right. Someone's going to be mad at the guy all the time. It helps you to grow, in my opinion, to have to deal with that type of relationship. It's an experience you just can't get with just one wife."

He added: "It's not about sex. There's easier ways to get a lot of sex."

For Roy, family dynamics are an important consideration.

"We're not out actively trying to seek wives. At least I'm not. If that comes about, it's gotta happen the right way or it's going to screw up the first marriage, you know what I'm

saying? I can't be out chasing girls or you're going to mess up the first relationship," he said.

Roy said communication and commitment are key to making polygamy work.

"Both (partners) have to be very involved to do it right. I mean, I can be an asshole and go out and chase a girl and bring her home and say, 'Here it is, work with it,' but it's not going to work out. But it happens," he said.

Roy also believes FLDS marriages, singular or plural, are more likely to succeed than most.

"We actually have a much lower divorce rate. I think the national average is 55 percent or something," he said. "We're maybe 7 or 8 percent."

Lorin, Roy and Allen all have the same father, who had multiple wives. None will discuss how many.

"Take my dad's family. He takes the advice of the ladies, but he makes a final decision. It's like a judge panel in the Supreme Court," Roy said. "There's a judge that has a little more pull than the rest. But a lot of guys are off working all day or all week, and the ladies gotta run the house. It's not like (a) do-what-I-say-or-else type of household."

GROWING UP POLYGAMIST

Marlyne Hammon, 60, is a sixth-generation polygamist Mormon. A payroll clerk for the public school system in Colorado City, Ariz., Hammon has been married for 44 years. Hammon knew her husband would have other wives when she married him. She now calls them her "sister wives," and she said she looked forward to having them as part of her culture.

Hammon said each brought a new dimension into their family. There are now four wives in the house.

"This is one of the amazing things about a plural family: You have so many different personalities, natures and talents it makes your life so much more fully faceted," she said.

In 1953, Arizona Gov. Howard Pyle organized a raid on the polygamous community of Short Creek. A total of 263 children were seized, declared wards of the state and placed in foster care. Hammon was one of the children taken in that raid.

"I was an infant at the time of the 1953 raid. The mothers and children were all taken away from home They

were going to adopt all the children out and destroy the records," she said.

Short Creek had been raided in 1935 and 1944. In the '53 roundup, Hammon and the others were spared only because laws in Arizona prohibited the adoption of a child without the consent of both parents.

In such an atmosphere, many children of modern polygamous households have grown up hiding their religion and sometimes hiding their homes. Hammon's grandfather and others in her family have gone to jail for polygamy.

"And so we were in that mode of just, 'Keep your mouth shut, fly under the radar.' Not because we wanted to commit crimes but because we wanted to protect our families," she said.

"I THINK THE CLIMATE HAS CHANGED. IT'S NOT LIKE WE'RE A BUNCH OF CRIMINAL FAMILIES HIDING IN THE DARK."

—MARLYNE HAMMON

Small slip-ups in public could give the government occasion to arrest polygamous men. Hammon recounts one story of two men charged with carrying a woman across state lines for "immoral purposes." According to Hammon, the men were simply giving a plural wife a ride from Utah to Short Creek to visit her family. Hammon said the men were arrested and charged by Arizona troopers even though they actually had the woman get out and walk across the state line herself. Hammon said they eventually went to prison.

Hammon points to political haymaking as a major problem for Mormons, particularly when Lincoln's Republican party introduced an 1856 platform featuring harsh attacks on the "twin relics of barbarism": slavery and polygamy. She believes poor journalism only made things worse.

"Their lack of knowledge created a fear, and of course they dreamed up all kinds of things," she said.

Hammon admitted there have been cases of abuse in polygamous families but points out the same problems occur in monogamous families. Still, social stigma is more liberally applied to polygamists, and the temptation to hide away from public scrutiny is great. Hammon and the



Marlyne Hammon works with the Centennial Park Action Committee to dispel myths about polygamy.

Courtesy of Marlyne Hammon



Roy Zitting currently has one wife, though he isn't against the idea of more.

Susie Stout

Zittings have decided change can only come through openness and aren't hiding their practices.

Hammon belongs to the **Centennial Park Action Committee** (CPAC), a political group she helped organize in 2003. The group interacts openly with journalists, government officials and lawmakers in an attempt to present “a correct view of the polygamous lifestyle as practiced in Centennial Park.” The site clearly states the community is not part of the FLDS.

In August 2003, Hammon and a hundred women showed up unannounced to a “polygamy summit” held in St. George, Utah. The summit was a project of the attorneys general of Utah and Arizona, and Hammon knew coming forward was a risk.

“We didn't have a guarantee that they wouldn't put us in irons and put us behind bars because we're criminals, but we cannot—we could not—let the untruths stand any longer. We had to protest. ... We decided we had to stand up and talk and define ourselves,” Hammon said.

Declaring yourself a polygamist remains risky. She and members of her family experienced seizure, arrest and social isolation, so it would be far easier for her to keep to herself. She's openly breaking a law that dates back to Abraham Lincoln. But as the Edmunds Act begins to crack with age, Hammon stands fast in her beliefs, and she's excited about the “*Sister Wives* ruling” in Utah.

“What they tried to do was say that we were living in bigamy because we just call each other ‘husband and wife’ in a religious ceremony,” she said. “We were not trying to be legal under the state. Only one wife has a legal marriage license.

“They tried to say, ‘You do call her a wife, so you live in bigamy, and for that you have to be prosecuted.’ And this ruling changed that—which is big.”

She continued: “I think the climate has changed. It's not like we're a bunch of criminal families hiding in the dark and trying to abuse ourselves. They understand or are coming to understand that we're just normal people and this is the way we choose to live our lives.”



While many polygamous families hide their practices, the Zittings and Marlyne Hammon are sharing their views in hopes of greater understanding.

George Frey/Getty Images

Lorin Zitting agrees.

“When you're a kid, people look down on you for being different. I was almost ashamed of what I was just because of the way people treated me. The older I get, the more proud I am of what I am. I don't have to hide what I am. It creates happiness in my life; it creates joy. It's not something I feel I should have to hide or be ashamed of.”

JUDGE NOT?

If practiced by consenting adults, does polygamy hurt anyone?

Is it morally wrong—and if so, by whose morals?

Are polygamist families bad or just different?

The law will determine the criminality of Hammon and the Zittings. Regardless of court rulings, they're willing to continue openly disobeying laws they believe are unjust.

Do a partner workout with Roy Zitting, and you wouldn't know he comes from a polygamist family. Every day,

CrossFit, the Great Sweating Pot, brings together people of different religion, race and politics. When a guy can do a hundred double-unders to build the team total, his beliefs outside the gym seem less important.

Is it a sin to judge him?

ABOUT THE AUTHOR

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

WARRIORS ON THE WAVES

AUTHOR ANDRÉA MARIA CECIL

PHOTOGRAPHER DAVE RE

DESIGNER NAVEEN HATTIS

OPERATION SURF takes wounded members of the military into the ocean as part of its mission to rehabilitate with recreation.



It was Sept. 25, 2008. Sgt. 1st Class Charlie C. McCall, a U.S. Military Police officer, was asleep beneath a tent surrounded by buildings in Kandahar, Afghanistan. One of his soldiers slept nearby. The rocket hit right between them.

In the aftermath, McCall found himself standing in a crater.

“I saw it happen, but I don’t remember it happening.”

McCall has post-traumatic stress disorder (PTSD), his cognitive processes are off, and he has a hard time remembering things. His left leg is almost always in pain—“crazy pain.” Doctors might eventually amputate it.

“My brain cuts out sometimes because I have to take a lot of meds.”

He says “all kinds of stuff” is wrong with him.

“I’ve just been falling apart.”

But today things are good. McCall has spent five days in the Pacific Ocean learning how to surf.

A program run by California-based nonprofit Amazing Surf Adventures, Operation Surf teaches wounded active-duty and veteran members of the military how to surf. Instructors—many of them world-class surfers—are paired with a military member or veteran. Some are managing PTSD; others are becoming accustomed to life without one to four limbs. The goal is to give the wounded warriors “the confidence to move forward in a positive direction,” according to the [Operation Surf website](#).

CrossFit Inc. sponsored Operation Surf Santa Cruz, held April 2 to 8. The day the group arrived, the Patriot Guard Riders—along with local police agencies—escorted the men from Norman Y. Mineta San Jose International Airport to the beach town. Along Highway 17, law enforcement and first responders stood atop overpasses, saluting the vehicles as they motored through. When they finally made their way to the coast, about a dozen men took to the waters in the city that was home to CrossFit Founder and CEO Greg Glassman’s original CrossFit gym.

For McCall, surfing is good.

“It’s actually kind of peaceful,” he says.

“I could probably do this once a month. Or once a week.”

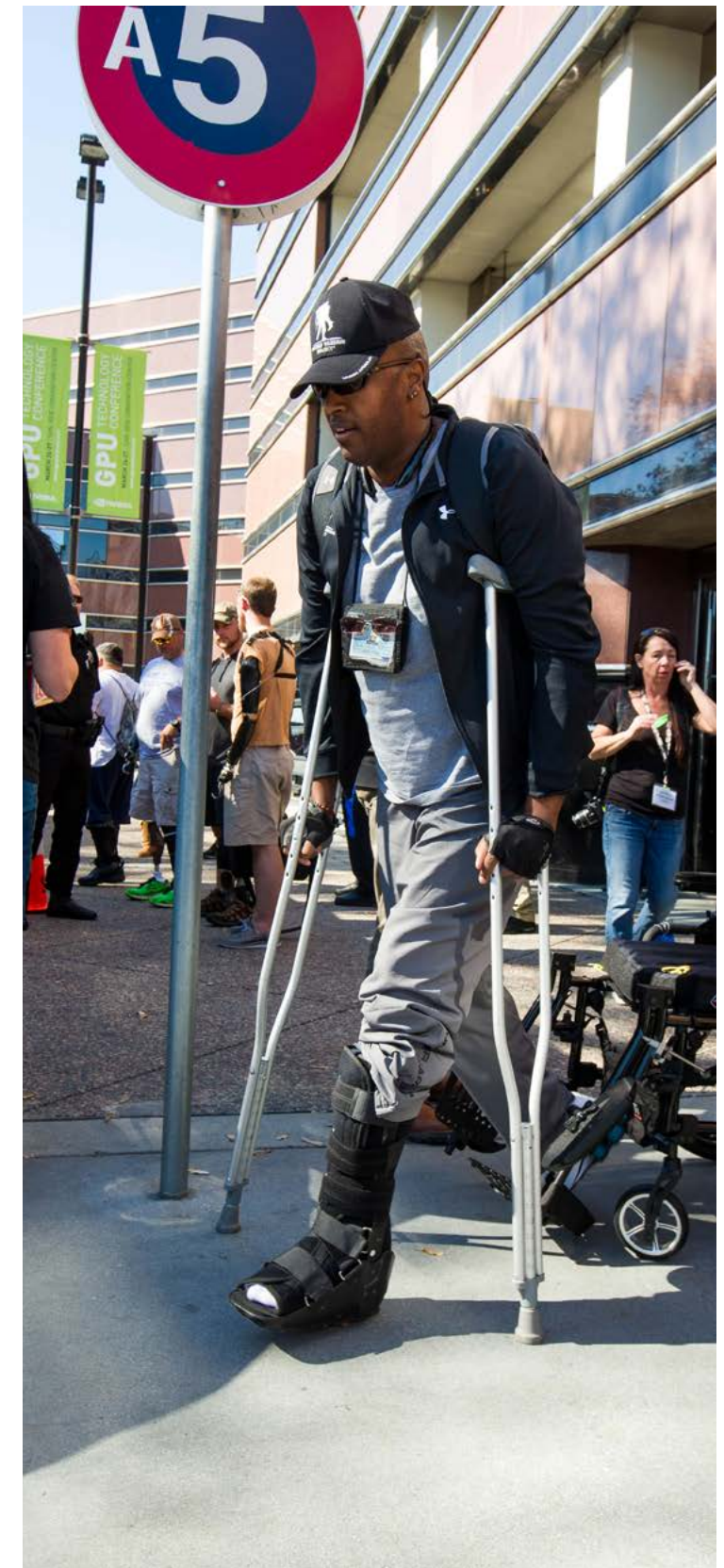
After being injured, McCall was assigned to Bravo Company, Warrior in Transition Battalion from August 2010 to 2012. He retired from the Army in 2012.

The 44-year-old’s been trying to get out more, heeding the advice of his physical therapist: adapt and overcome, just like the military taught him during 22 years of service.

“It’s been fun ... I’ll never forget this.”



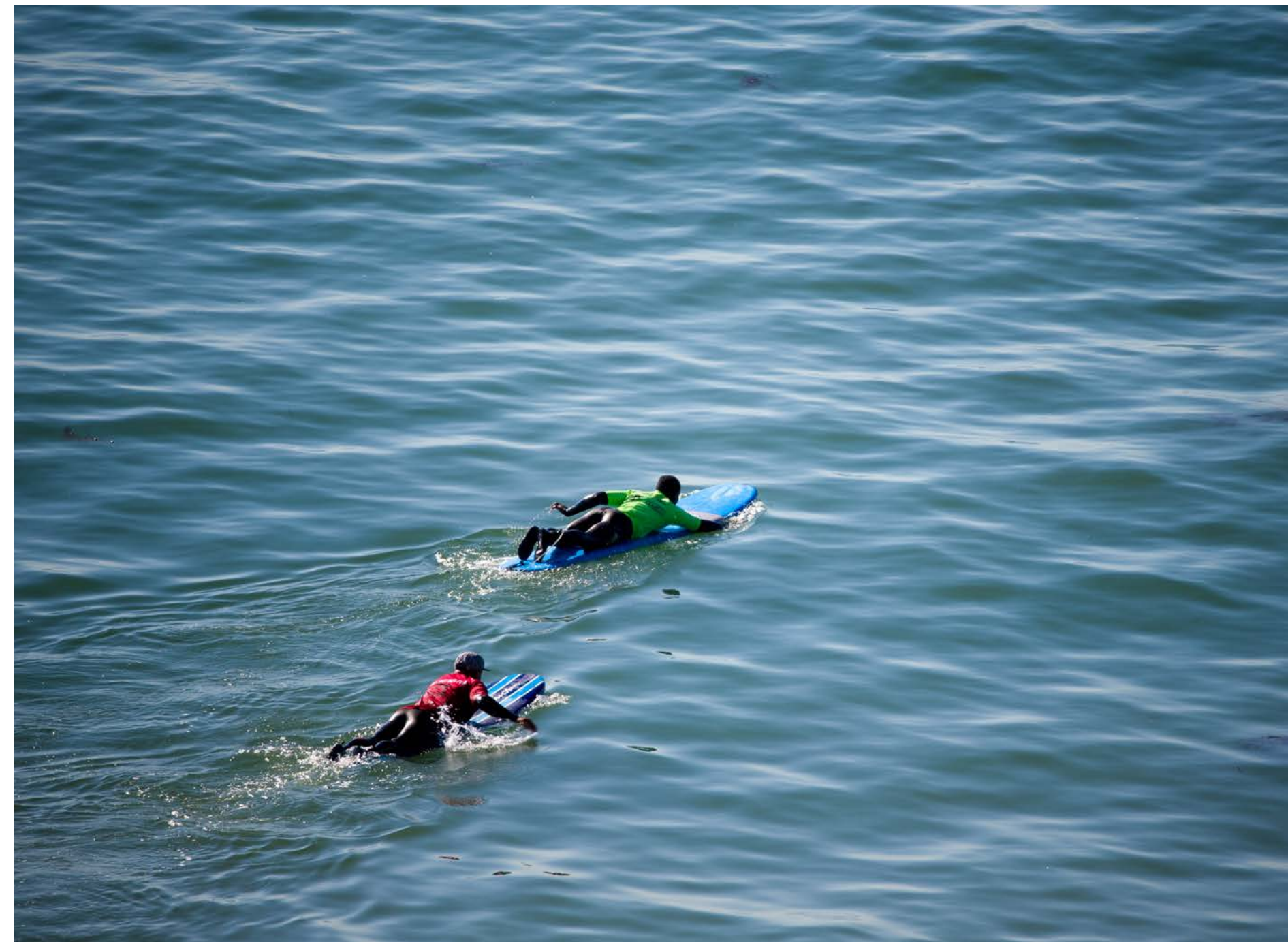
CrossFit Media photographer Dave Re spent six days with the warriors to document their experience.













**“IT WAS LIKE
FINDING ME. I
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PROSTHETICS.”**

—Martin Pollock, British Army, triple amputee



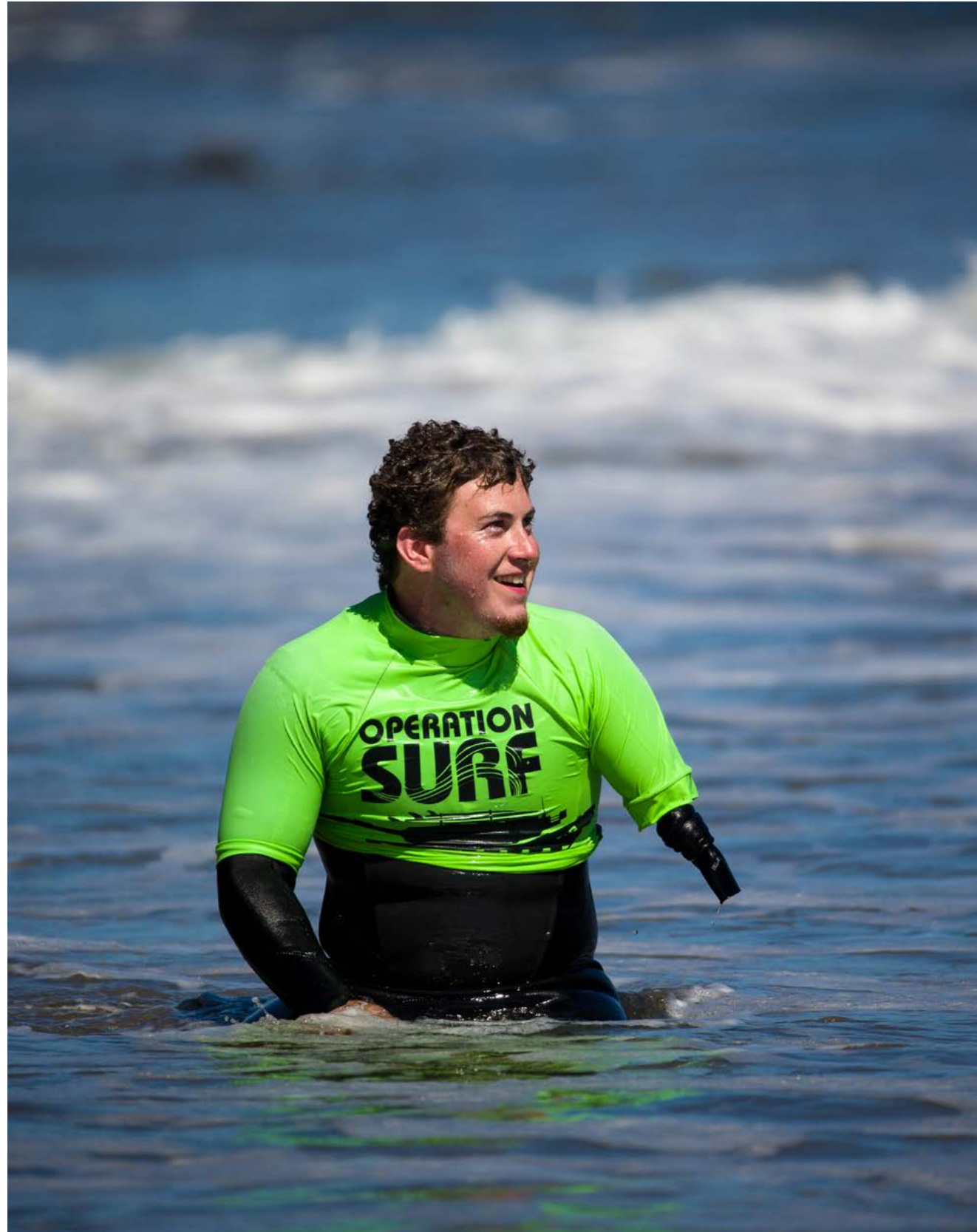


**“WE’RE JUST SURFERS TAKIN’
A BUNCH OF GUYS OUT AND
HAVIN’ A GOOD TIME.”**

—Brent Edwards, Santa Cruz event director, Operation Surf











**“WHEN I HIT THE
WATER, I DON’T
FEEL DISABLED.
IT REALLY HELPS
KNOWING WE
CAN ACCOMPLISH
THINGS.”**

—**Rodney Roller**, champion amputee surfer and
co-founder of Amazing Surf Adventures





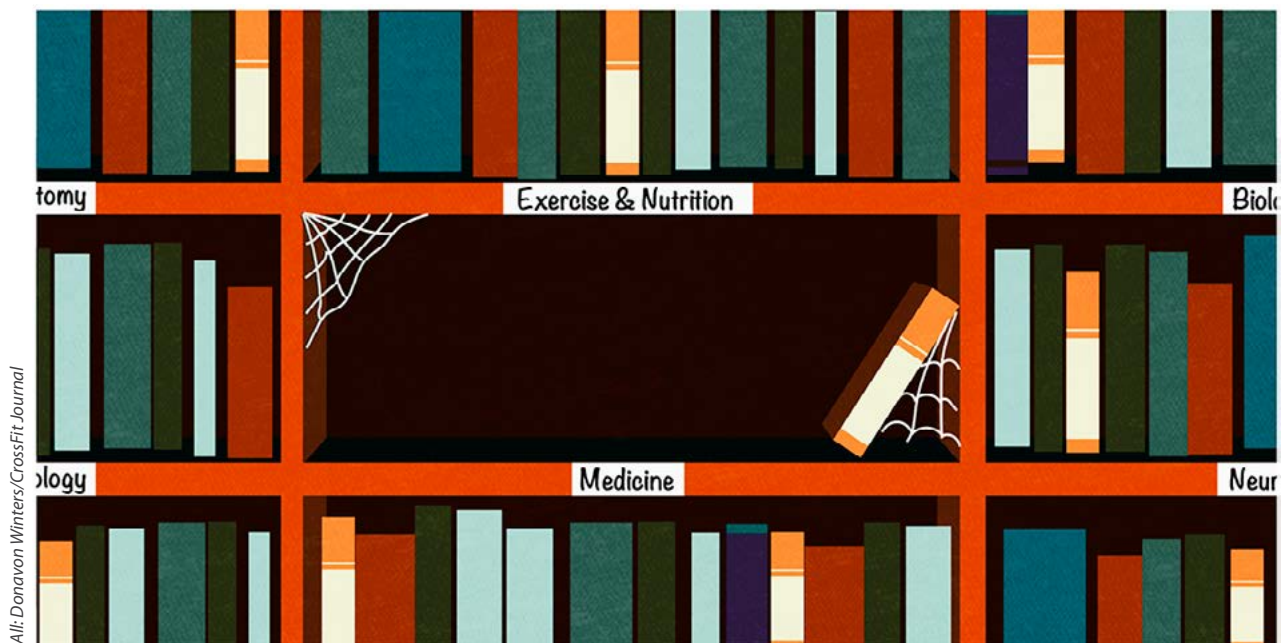
THE CrossFit JOURNAL

Prevention or Prescription?

Thomas Edison said, “The doctor of the future will give no medicine.” But will the medical school of the future give enough education on fitness and nutrition? Andréa Maria Cecil investigates.

By Andréa Maria Cecil

April 2014



With wine comes honesty. Mike Roizen knew that.

So he encouraged imbibing every Wednesday night, when he would meet eight medical students to find out who the good and bad teachers were at SUNY Upstate Medical University's College of Medicine.

“That’s why I would give them a little alcohol, so they would tell me the truth,” he explained.

But Roizen got more than he bargained for when the students started talking about nutrition. What he discovered was “appalling.” Their nutritional ignorance made him shake his head. And he was the medical school’s dean.

That was 12 years ago. Today, not much has changed.

1 of 6

For decades, neither diet nor exercise has been discussed in any depth at most U.S. medical schools. Some institutions spare a few hours here and there to explain the federal government's food pyramid or how nutrients are absorbed and to vaguely advise that "moderate" exercise is good. Meanwhile, many Americans look to their doctors as family members die younger or live their later years with more disease than citizens of poorer countries—despite the U.S. spending nearly \$3 trillion on health care in 2013.

Learning Gap

At Albert Einstein College of Medicine in Bronx, N.Y., teachings on diet and exercise range from "pretty minimal" to "nonexistent," said Dan Schaerer, who graduated from the school in May 2013. He is now in his first year of residency at the University of California San Diego Medical Center.

"As far as curriculum, I don't really blame them for not teaching it, in a sense. It's not like teaching a cell structure or the symptoms of diabetes ... it's a very nebulous topic," said Schaerer, a CrossFit athlete.

Frankly, he didn't expect to learn much about exercise, in particular, in medical school.

"There is so much you have to learn" in so little time, he explained.

Dr. Meghan Thomas, who graduated from the University of California, San Francisco School of Medicine, had a similar experience—in 1993.

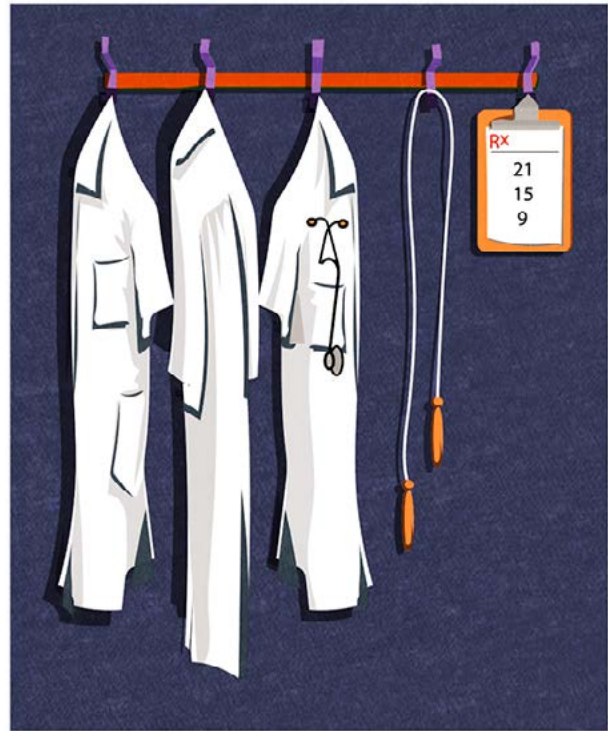
"I learned nothing about fitness. Nothing. Nutrition, I think we had about four hours (on) nutrition," said the family practitioner in Santa Cruz, Calif. She trains at CrossFit Santa Cruz.

A nutritionist came to the school specifically to talk about the government food pyramid, Thomas recounted.

"I don't remember him being very progressive or alternative or going outside the box at all," she said.

In her first years at Cleveland Clinic Lerner College of Medicine in Ohio, Julie Foucher had "a few" seminars on nutrition.

"We're not given a lot of tools to be able to: one, understand nutrition or, two, to be able to counsel on nutrition, even though that's expected of us," explained the three-time CrossFit Games competitor.



If anything is to blame, it's mostly a mentality, Foucher said.

"Education and the health system is so geared toward fixing problems and being that lifeguard rather than a swim coach," she said, referencing words by CrossFit Inc. Founder and CEO Greg Glassman. "So even while we're going through school, it's focused on pathology and treatment."

Other medical students and doctors in a handful of other states recalled similar experiences.

"The training with regard to fitness and nutrition in medical school is atrocious," said Dr. Atul Sachdev, a family practitioner in Baytown, Texas. He graduated in 1995 from the University of Texas Health Science Center in San Antonio.

"I'm pretty surprised how little emphasis there is on that kind of stuff, yet as a doctor—especially in primary care—you're called upon to advise your patients on this."

The lack of education on the topics creates a situation where most medical students run up against a wall, Schaerer said. Once they enter a hospital, they are confronted with countless patients suffering from high blood pressure, diabetes and other chronic illnesses—"all these things that can be helped by fitness," he said.



Some well-meaning physicians—especially those in primary care—will emphasize physical activity, he continued. But much of the American public translates that into taking a short walk or gardening once a day.

“Patients don’t really have much more education than that,” Schaerer said. “Physicians can’t really offer too much more than, ‘You should be more active than you are—30 minutes a day, three days a week.’”

Compounding the problem is the fact that most doctors simply don’t have time for meaningful discussions with patients about diet and exercise.

“If I want to get someone’s lipid profile to look better, it’s far easier and more efficient to write them a prescription as opposed to spending time educating them on how to exercise and eat better,” explained Dr. Mike Ray, an emergency physician at Flagstaff Medical Center in Arizona. Ray owns CrossFit Flagstaff and has been medical director of the CrossFit Games since 2008.

“If I give someone a one-liner to eat better and exercise more, that’s probably not a very effective intervention.”

Even 10 to 15 minutes of sitting down to discuss someone’s nutrition and fitness is asking a lot for some doctors, Ray continued.

“There just isn’t space for it.”

Finding Their Own Solutions

If doctors seek to counsel patients on diet and exercise, most of them must educate themselves.

During his residency from 1995 to 1998 at San Jacinto Methodist Hospital, Sachdev stumbled upon Barry Sears’

book *The Zone Diet*. About 30 lb. overweight, Sachdev was searching for a way to control the pounds.

“When you find something like that to be personally successful, you’re in a better position to talk to other people,” he noted.

Such is also the case with Thomas and Ray, both of whom are CrossFit athletes.

Thomas began talking to her patients about diet and exercise during her residency.

“As it became important to me, it became important in my practice,” she said.

And after nearly four years of CrossFit, Thomas said such talk has become even more important to her. The 47-year-old emphasizes the simple ability to move to those patients who are her age and older.

“You need to be able to take care of yourself as much as possible,” she tells them.

“So when I give it to them in those practical terms, they start listening,” she said.

But Thomas is one of the self-described “lucky” ones. Her practice—Scotts Valley Medical Clinic—is one of the few in town owned by the doctors who practice there. Likewise, she’s able to spend more time with patients than many other physicians. For new patients who are over 40, she asks them to allot half an hour.

“It’s really just to sit down and talk about your history,” she said. “A huge part of what I do is the diet-and-exercise thing.”

But, as always, there’s a catch.

"On the other hand, I have to pay the mortgage," Thomas explained. "I can't spend an hour (with patients)."

With the practice's overhead gobbling up to 65 percent of what the business takes in and no insurance diagnosis code for diet-and-exercise consultations, Thomas has to draw the line somewhere.

"That's frustrating—the time element," she said.

For Ray, being an ER doctor means all patient visits are unplanned. And with the need to treat people efficiently, having a discussion about diet and exercise is next to impossible.

"We're just not really equipped to do that," he said.

So Ray does what he can when he can. His solution: detailed discharge instructions.

"The training with regard to fitness and nutrition in medical school is atrocious."

—Dr. Atul Sachdev

"I recognize that all the studies show patients don't read the discharge instructions," Ray said.

Maybe he does it to make himself feel better. Still, he knows that every now and then, someone reads them.

"I try not to kid myself that it's making a huge difference," he said.

And occasionally patients will strike chords with him: "I'll have more of a discussion with them about their diet."

In the end, though, Ray doesn't have proof that anyone takes his recommendations to heart. Unlike a primary-care physician, he'll likely never see his patients again.

Sachdev, meanwhile, has a luxury most doctors have never known: lots of time.

His practice is affiliated with MDVIP, a concierge model based in Boca Raton, Fla., with 650 physicians across the country. In exchange for a \$125 monthly membership fee, 600 patients get whatever time they need from him. By comparison, a typical family doctor can have anywhere from 2,000 to 3,000 patients.

"I have the time to sit down and explain to them not just what the right thing to do is but how to do it. That, to me, is what really affects their compliance," said Sachdev, who recommends the Zone Diet to his patients. "In this type of practice, all of the patients have my cell-phone number. They can call or text with questions and concerns."

Sachdev is well aware that his situation is atypical.

"It's sad but it's true that ... even if you have the best of intentions and have the knowledge to pass along to the patients in traditional medicine, you just don't have the time to do so," he said. "You barely have the time to take care of the reason they're in your office to begin with."

Fixing the Problem

Opinions on how to best improve medical schools' education on diet and exercise vary as much as the doctors and students themselves.

Some said an on-staff nutritionist would be ideal, while others said medical schools are becoming more aware of the importance of diet-and-exercise education.

For example, medical student Dave Warner learned about the DASH diet at the University of Utah. At the school, there's "a big push" to teach DASH, which stands for dietary approach to stop hypertension.

"As more and more evidence is showing how important nutrition is to health, as it becomes more proven, more concrete, then we respond in kind by increasing the education that we get on it," he said.

Still, the onus is on medical students and doctors, said Sarah Miletello, who is in her final year at Baylor College of Medicine in Houston, Texas.

"I think that we definitely ... have the responsibility for learning it ourselves," she said.

Miletello added: "I'm not sure medicine is doing a bad job of things, but I think it's just the situation."

For his part, Schaerer will specialize in head-and-neck surgery. Likewise, he probably won't talk to his patients and say, "Oh, you should do power cleans." Still, he feels



increasing diet-and-exercise education at the country's medical schools would result in healthier people.

"I kind of look at it (in the same) way smoking changed. In the '50s, physicians were recommending certain brands of cigarettes because they thought they were healthy," Schaerer said.

Elevating education standards for physicians, he continued, would "go a long way" in preventing patients' blank stares.

Then Schaerer went even further.

"It's very possible to infuse the culture of CrossFit ... into the culture of health care," he said.

Specifically, he suggested that medical students who are CrossFit athletes organize free workouts on their respective campuses. Like Foucher, Schaerer said he strongly believed in Glassman's analogy that a lifeguard is to a swim coach as a doctor is to a CrossFit trainer.

"With that analogy in mind, wouldn't you want your lifeguard to have at least a basic understanding of swim technique?" he asked in a written submission to the *CrossFit Journal*. "In our current system, it would be as if the majority of lifeguards in this country cannot swim and instead rescue people using (very expensive and ineffective) helicopters."

Ray echoed similar sentiments, saying that CrossFit—through its more than 9,000 affiliates worldwide—is already making a difference to "a small but increasing proportion of the general population."

"And I like to think that as that keeps expanding, that's going to filter into life everywhere. It's going to change government recommendations, it's going to change medical school, it's going to change what dietitians recommend," he said.

Beyond that, change is going to have to come from medical-school administrators, Ray continued.

"Is it going to pervade all medical-school education in the United States or worldwide in any short time frame? No. But can significant inroads be made in a few significant programs throughout the country and throughout the world? Yes," Ray said.

One such program is the Cleveland Clinic Lerner College of Medicine.

The school has plans to build a new medical campus by 2016. It will include an exercise area and a kitchen to teach students how to work out and cook so that they, in turn, can then teach their future patients.

"The Cleveland Clinic has said it can't continue to lead in medicine unless it leads in preventing the influx of chronic disease," said Roizen, today the chief wellness officer and chair of the Wellness Institute at the Cleveland Clinic.

"The major risk to innovation in the United States is the influx of chronic disease that then necessitates high medical cost and the disruption in other programs."



Roizen sees medical-school education changing dramatically over the next decade to include more on diet and exercise. Tomorrow's doctors must "know what they're doing when they go out to order food, know what they're doing when they cook food and exercise."

But Jesse Maupin, a third-year med student at the University of Washington, rejected the idea that doctors are supposed to be omniscient.

"If I could just convince all of my future patients to understand and embrace one thing it would be to put less responsibility of their health in my hands and put it in their own hands," he said. "We don't have crystal balls."

The Chosen Lifestyle

Medical advances in illness care since 1900 have been remarkable, Roizen noted.

"We learned how to treat pneumonia, and that was a revolution. We learned, if you will, how to prevent instant diarrhea, and that was a revolution."

Medicine created an environment in which people can develop chronic diseases and live with them. In turn, medicine became less about maintaining health and more about managing disease.

"It never used to be that way. When you got a chronic disease, you died," Roizen explained. "Now you don't because of technology."

He added: "The problem is we created a society with enough excess income to spend a fair bit of money on food and behaviors and lifestyles that cause us illness. We just didn't have that luxury before. And now that we've done that, we've forgotten our roots."

Modern medicine has forgotten many things. The old adage states, "An ounce of prevention is worth a pound of cure." But most of today's doctors simply don't have the knowledge to dole out an ounce of prevention. And most medical schools continue to be complacent.



About the Author

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THE CrossFit JOURNAL

The Hospital Affiliate

Five years ago, Ken Smithmier found CrossFit. Then it found his hospital.

By Andréa Maria Cecil

April 2014



Terri Smithmier

**Ken Smithmier, president and CEO of
Decatur Memorial Hospital.**

Ken Smithmier has a history of experimenting with diet and exercise.

The 59-year-old hospital CEO has called himself a vegetarian, a runner, a weightlifter, even a cyclist.

But it was one evening in 2008 that led him down a different path. He picked up his copy of *Muscle and Fitness*, eventually arriving at Page 142. There he found the article "Sweat Storm"—the tale of a *Muscle and Fitness* staff writer who plunged into CrossFit.

After reading all seven pages, Smithmier made a decision.

"Well, OK, I'll start that tomorrow," he thought.

The next morning he visited CrossFit.com. The workout of the day was Murph.

For time:

- Run 1 mile
- 100 pull-ups
- 200 push-ups
- 300 squats
- Run 1 mile

CrossFit.com's instructions: "Partition the pull-ups, push-ups and squats as needed. Start and finish with a mile run. If you've got a 20-lb. vest or body armor, wear it."

Smithmier did at least 30 days of benchmark CrossFit workouts, learning movements via instructional videos. He did it alone at a Globo Gym until one day the owner talked to him.

"Ya know, there's a guy who comes here in the afternoon and he does some of this weird shit you're doing," Smithmier recounted him saying.

That guy was Cole Namken, an ex-military officer who worked at a local manufacturing plant.

Smithmier had found a training partner.

Late in April 2009, both men traveled to Indianapolis, Ind., for a CrossFit Level 1 Certificate Course.

"At that point, I really started to realize that this stuff could have some impact on people's health," Smithmier said. "And I was very excited about it from a hospital and community point of view. And since I'm president of the hospital, I have some latitude to do that kind of thing."

"I really started to realize that this stuff could have some impact on people's health."

—Ken Smithmier

When he got back, he called a lunch meeting with the trainers involved in Decatur Memorial Hospital's community-wellness program. He told them about CrossFit.

Smithmier could only imagine what they were thinking: "Here comes the 50-something CEO, having called all these 30-something trainers, telling them something about their expertise."

He added: "I assumed some eye-rolling was happening."

So he didn't push too hard.

"I wasn't going to force them to do it."

But a couple of the trainers shrugged and decided to give it a try.



After finding CrossFit himself, Smithmier wanted to offer it to the hospital's employees and the surrounding community.

They took a 12-foot-by-12-foot space, jerry-rigged some equipment and started doing CrossFit themselves.

"And I had no idea," Smithmier said. "And so they said, 'We think you're right.'"

They started small, training collegiate swimmers at a local liberal-arts school. Over time, they noticed improvement in chronic shoulder problems among the athletes.

"We progressed with that, had conversations and said, 'Why don't we open our own CrossFit gym?'"

CrossFit Enhance was born.

President and Coach

Smithmier expanded his executive duties to include those of affiliate owner.

The gym started with a mere 400 square feet.

"(We) put together our own curriculum, elements (classes) for getting people involved. We had one class in the morning and one at night," he said.

And gym membership, which was free, was limited to hospital employees.

Up until the last few months, Smithmier continued to teach all the affiliate's elements classes.

Today, the box is 5,500 square feet and is open to the surrounding community. It also has 75 children enrolled in its CrossFit Kids program. Membership for hospital employees is still free with an initial one-time fee of US\$100. Non-employees pay \$50 per month. As of Feb. 1, CrossFit Enhance had 483 members.

"So the thing has just taken off (like) a rocket," Smithmier said.

Still, there's room for improvement.

Of those 483, only 129 are hospital employees. Decatur Memorial Hospital employs about 2,000 people.

"We would like to see the number get up to 35 or 40 percent participation," said Josh Newton, manager at

CrossFit Enhance and a Level 1 coach.

Dianna Cardwell, a hospital laboratory worker who started training at the affiliate the year it opened, said employees don't realize what they're missing.

"The benefit that they're offering us is phenomenal. I mean I know how expensive CrossFit is in other towns, so for me to be able to do it for nothing, it's unbelievable. It's a huge benefit. I mean a huge benefit," she said.

Cardwell's husband and children also train at CrossFit Enhance.

The gym's 12 coaches teach a combined 13 classes each day, starting at 5 a.m. and ending with the 6:30-p.m. session.

"We try to be as accommodating with people as we can be while still maintaining the integrity of the program," Smithmier said.



Chad Mitchell

At CrossFit Enhance, Decatur Memorial employees do not pay a monthly fee to train.



Chad Mitchell

Almost 130 Decatur Memorial employees are taking advantage of a corporate-wellness program based on CrossFit.

Belief and Faith

Over the years, Decatur Memorial Hospital has offered “a lot” of wellness programs, Newton noted.

“This is the most successful employee health initiative that (Smithmier) has done,” he said.

And its benefits are clear—at least to Smithmier.

“Unfortunately, something like this, I can never quantify a payback on this. I just can’t. We don’t live in a wealthy area here. If I want wide-scale participation, I can’t charge what (other affiliates do),” he explained. “It’s never gonna be a profit center.”

Smithmier added: “Absent a financial return, you do it on belief and faith.”

For those interested in starting an affiliate at their own hospital, he offered some words of wisdom.

“This is not going to happen at your hospital ... unless a person with a lot of power who is at the top—or very near the top—decides to make it important to them. And it was important to me. And I think I’ve been proven right. I guarantee you, I guarantee you ... that every employee that I have in the CrossFit gym is healthier, their productivity is up, and absenteeism is down.”

Dr. John Waters, a 62-year-old interventional cardiologist at Decatur Memorial Hospital who began training at CrossFit Enhance about three years ago, went a step further.

“This model should be offered by more hospitals to their employees and to the community—because it is the developmental model for wellness,” he said.

“This is what people are asking for with the Affordable Care Act. ... This is reaching out to the community and trying to keep people in the community healthy.”



About the Author

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THE CrossFit JOURNAL

Rewired by the WOD?

As researchers start to close in on the causes of autism, some CrossFit gyms are testing treatment theories that suggest exercise can help.

Corrects to clarify that some children with Asperger's, not all, are averse to touch in story published April 25.

By Chris Cooper

April 2014



Chris Cooper

Living with autism is about making connections.

Since the earliest diagnosis of autism in 1911, parents have searched for ways to relate to children whose symptoms often make interaction challenging. With no cure for the developmental disorder, treatment plans can include behavioral

management and even institutionalization. But new brain-mapping technologies, behavioral strategies and physical therapies are closing in on the condition from different angles. And many new recommendations include exercise to help with social skills, cognition and health.

"When someone in your family is diagnosed with autism, it becomes the central thing in everyone's lives," said Brian Costello, owner of CrossFit Long Island. Costello coaches two groups of kids with autism every week, including his brother Danny. Both Costello brothers love the group, and the workouts might be helping Danny with more than muscular strength.

With autism diagnoses occurring at an increasing rate, more parents and researchers are now asking if exercise can improve the lives of those who live with the disorder.

The Connectivity Matrix

When viewed from the top, the human brain looks like a walnut: two large lobes, or hemispheres, partially separated by a split down the middle.

Though physically identical, the right and left hemispheres of the brain specialize in different things. Creative

tasks—composing a blog post, conceptualizing a painting, brainstorming lyrics—are more typically associated with the right hemisphere. Logical functions—calculation, translation, sorting of data—are usually done in the left. The left hemisphere controls the right side of the body, and vice versa.

But while pop psychology would have us believe one side of your brain is "dominant" over the other, it's not that simple. When you write a note, your right hemisphere forms the tone and considers the social repercussions. The left hemisphere translates your thoughts into language. When your right hand types, it's controlled by the left hemisphere; meanwhile, the right hemisphere tells the left hand to stay still. Both hemispheres work together for almost everything, and the corpus callosum is their link.

A thin band of white matter, the corpus callosum is the real information superhighway, carrying information from right to left and back through about 250 million electrical connections. Einstein's brain was the same size as yours, but his corpus callosum was extraordinarily thick with connections, allowing him to take an idea or concept (right hemisphere) and explain it in an equation (left hemisphere) better than most (4).

"If you can't explain it to a 6-year-old, you don't understand it yourself."

—Albert Einstein

Cooperation between hemispheres means when a woman suffers brain damage on the left side, she might still relearn math using the same region on the right side. But it also means the brain is heavily reliant on the delivery path to share information accurately, quickly and with the correct priority. Researchers now believe the corpus callosum, entrusted with all that information, may function differently in people with autism.

Too little connection is obviously bad. But too much connection, especially to the wrong area of the brain, can be worse (7).



Chris Cooper

While autism currently has no cure, some researchers suggest exercise can help reduce its symptoms.

Pruning Unnecessary Connections

Crossing the Nile in a rowboat is hard. But if you wanted to make it harder, you could try adding 250 million other rowboats.

Lucina Uddin, Ph.D., of the University of Miami is counting the connections in human brains. She said the problem might not be a lack of connectivity but a lack of pruning the wrong connections (8).

"There's a prevailing underconnectivity idea in autism that the brain structures aren't communicating with each other, that there are less connections. That's been the theory for 10-15 years, but that's mostly based on work in adults in autism. When you look at their brains, you tend to see reduced connections between different regions," Uddin said. "But we started looking at younger kids, specifically 7-12 years old. Their brains are actually overconnected compared to their developing peers."

Your response to any stimulus changes as you age. Small children sometimes "make strange" with faces they don't immediately recognize. As familiarity grows, they drop the negative connection and soon forget Uncle Al's beard was once terrifying. This may not be the case with the autistic child.

"In typical development, you have overconnectivity early in life, and then connections get pruned away so that only specific important ones remain in the adult brain," Uddin said. "We have this idea that maybe that pruning process is delayed in autism, so the young kids are overconnected and they're not getting rid of the unnecessary connections at a fast enough rate."

If a child is scared by Uncle Al's beard, he'll form a connection to the amygdala, which is responsible for the fight-or-flight response. It's the part of the brain that lights up when you see a snake, for example. As the child learns to trust Uncle Al, that connection is pruned and he's no longer afraid. But if the connection remains, the child might still be scared by the beard—even years later.

"Some regions are too connected to each other, and that could result in abnormal responses. The level of connectivity between specific brain regions is very critical—and the right level: not too much and not too little," Uddin said.

Further confounding the problem is the brain's hierarchal approach to responding to stimuli. The amygdala is usually consulted first—you react to a hot stove or a snake before you can even think about it—and that supersedes a



During special classes at CrossFit Long Island, kids with autism learn movement patterns that might help them create new pathways in their brains.



Inspired by his autistic brother, CrossFit Long Island owner Brian Costello uses his gym to help others with the disorder.

rational approach. You can't talk a child with autism into liking his Uncle Al, just as you can't convince someone that fire isn't hot.

"If there's too much activity in the amygdala, you might have anxiety or exaggerated fear responses or things like that," Uddin said.

Some autistic children have poor connectivity between the part of the brain (Wernicke's area) that responds to human voice and the part (Broca's area) that responds to reward (1).

"For most people, listening to a mother's voice is a rewarding process. In kids with autism, there's underconnectivity between the voice region and the reward region," Uddin said.

When a toddler is frightened by his Uncle Al, he cries. His mother picks him up and soothes him, she tells him Uncle Al isn't scary, and the child eventually comes around. But what if mom's voice doesn't help? What if it never will? Some studies suggest issues with amygdala function in autistics prevents them from linking appearances with knowledge and then engaging in an appropriate behavior (2).

Uddin said the same symptoms might be seen to a lesser extent in children who are at the edge of the autism spectrum. Children with Asperger's syndrome, for instance, might struggle with social interaction but have fully developed cognitive skills and language.

"A lot of high-functioning kids only have deficits with their social interaction, and they're pretty good with almost everything except picking up social cues. A lot of them just process social stimuli a little bit differently, even the ones with the high IQ," she said.

In these cases, behavioral therapies may work well over the long term because kids can unlearn their negative reaction to social contact. For example, some kids with Asperger's are averse to touch, but they can learn to manage their reaction to touch. Through therapy, they can literally rewire their response (6).

And exercise makes that rewiring easier.

Crossing the Midline?

If efficient connection across the corpus callosum is important to brain function, can we improve those connections? Can we stimulate the pruning of inappropriate connections and help new ones form? Can we condition children with autism to rewire their responses to stimuli? If so, where do we start?

Can we condition children with autism to rewire their responses to stimuli? If so, where do we start?

"These are the million-dollar questions," Uddin said. "We don't know where exactly the functional disconnections are, but we have a couple of candidates. We look at the regions of the brain that are specialized for processing faces or social cognition. They're underconnected in autism."

Conversely, the amygdala is often overconnected.

"Interhemispheric connectivity" describes the total number of connections made. "Interhemispheric coordination" describes how well those connections work together to form rational, appropriate action. And exercise can improve interhemispheric coordination (5).

Though most table-tennis players aren't ambidextrous, they have to play equally well on both sides of their bodies. That requires a degree of interhemispheric coordination almost unmatched in other sports. Table-tennis players aren't born great; repetitive play, requiring a lot of processing in both hemispheres at once, builds up the corpus callosum much like a muscle grows with training. A lifetime of table tennis can turn an average corpus callosum into a finely tuned instrument. If interhemispheric coordination can be measured along a spectrum, with "average" in the middle, can performing exercises requiring the use of both limbs at once improve translation across the corpus callosum?

While some researchers, such as Carla Hannaford and Paul Dennison, make the case for midline-crossing movements to stimulate interhemispheric coordination, third-party objective data doesn't yet support their BrainGym program. Owned by Dennison, his wife and Hannaford, **BrainGym** prescribes 26 midline-crossing exercises to enhance interhemispheric coordination. The exercises "recall the movements naturally done during the first years of life when learning to coordinate the eyes, ears, hands, and whole body," according to the BrainGym website.

The theory of repeating "primal movement patterns" such as crawling is becoming popular in many children's exercise programs. While empirical observation and reporting is promising, hard data isn't yet available beyond research funded by companies who sell the exercise programs.

What several studies do support is the stimulation of brain-derived neurotrophic factor (BDNF) by exercise. BDNF helps with the formation of new neurons, the electrical impulses that form thoughts and memories (3). Dr. John Ratey, the author of *Spark: The Revolutionary New Science of Exercise and the Brain*, famously referred to BDNF as "Miracle-Gro for the brain."

Behavioral therapies for autism aim to correct inappropriate responses to stimuli. But they take a long time: one neuron linking to a "correct" response can easily be overwhelmed by 250 million linking to the "wrong" one. Exercise might dramatically speed up that process by forming new neurons—and pruning the old ones—faster. In other words, children with autism can rewire correct behaviors more quickly and overrule the negative responses. If the theory is true, then more behavioral therapy sessions should occur in the gym.

Ratey believes exercise has other positive effects on the brain.

"The 'core'—all your muscles to hold you straight or keep you taut—is also directed by this part of the brain called the cerebellum. The cerebellum is involved with memory, learning, social skills, emotion and attention," Ratey said in 2013. "If you are uncoordinated physically, some things are going to be out of whack intellectually and emotionally."

In spring 2013, Ratey was consulting for a Boston-area group of children with autism. His belief was the physical training would help the children be more focused.

"They are very uncoordinated, which is a big problem," he said. "Their cerebellums are off. But you can train the cerebellum, which is what you're doing all the time you're working on the core exercises. Even, thinking of CrossFit, doing the rowing—there's a core component to that and certainly most of the other exercises we do."

Kids with autism enjoy movement, but most are starting from a deficit. Vestibular development is impaired in autistic children, and learning better movement patterns can only help them live better lives.



Chris Cooper

Researchers such as Dr. John Ratey are studying the effects of exercise on the brain and suggest fitness has a dramatic effect on learning.

Is it Really This Simple?

Though many factors contribute to autism, research into the potential of exercise to mediate the effects of cognitive delay is promising. And one factor in its treatment overrides all others: the child has to like it.

Luke Brennan is a skinny teen who spends much of his time at CrossFit Long Island with his fingers in his ears. Even when the room is silent, he prefers to face the wall, orange cap pulled low, avoiding eye contact. He spends a lot of time seated, knees pulled up to his chest, barely peeking out at his coach.

Costello is that coach, and when he introduced his "hopstake course" to his small class of teens with autism on March 15, Luke stood up and hopped in place. He hopped while waiting for his turn, and then he hopped from plate to plate for the length of the gym. Then he hopped back to the starting line, smiling. He didn't stop hopping until the drill was over. Then he plugged his ears and sat against the wall again.

"I want to keep it laid back," Costello said. "I want to make sure they leave here smiling."

Video: [CrossFit and Autism: Walking out With a Smile](#) by Mike Koslap

Costello's first group Saturday morning was new to CrossFit. Their energy was subdued; kids touched the walls, the rowers, the whiteboards and the rig, playing with J-hooks and rubbing chalk between their fingers.

Their behavior, first driven by an irrational response to fear, has been altered by the CrossFit Long Island coaching staff.

The second group had done CrossFit before. These kids were smiling, knocking on the door to get in early, high-fiving the coaches. Costello witnessed the change—from anxiety to excitement—in this second group over their first few weeks of CrossFit.



Chris Cooper

Costello keeps things relaxed during classes with autistic athletes. Similar to the goal of the CrossFit Kids program, Costello wants kids to leave with smiles on their faces.

"They go from shy and reserved to happy and excited," he said. "They show up early. They talk about it all morning before they go to the gym."

If nothing else, these autistic athletes have improved their social integration in an active setting. The average adult's first exposure to CrossFit may make him or her nervous; these kids appear terrified. But the inverse is also obvious: the happy smiles at the end of an average CrossFit class are amplified into dancing, clapping and laughter in this group. Their behavior, first driven by an irrational response to fear, has been altered by the CrossFit Long Island coaching staff. It's behavioral modification with real-world application, and in many cases results are seen much faster than with typical therapies such as applied behavior analysis.

In his book *Teaching With the Brain in Mind*, Eric Jensen states movement will change the minds of students in several ways.

"Many special-needs learners are stuck in counterproductive mental states, and movement is a quick way to change them. Second, movements, such as those involved in playing active games, will activate the brain across a wide variety of areas. It may be the stimulation of those neural networks that helps trigger some learning," he wrote.



Chris Cooper

Until science can prove exercise helps autistic kids, many parents will get their children moving simply because it's fun.

Exercise may help alter the brain's chemical and electrical systems. In many sciences, observation suggests a hypothesis before data can make its case for a theory. This may be one such case, and researchers will continue their work.

But in the meantime, providing a supportive environment of fun play might be the best way to help kids with autism. Ask the parent of any autistic child: a smile is rare enough to make them try anything.

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About The Author

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THE CrossFit JOURNAL

My Sprinter

Can movement serve as therapy for kids on the autism spectrum?



Column

By Lisbeth Darsh

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Danell Marks

When you're the parent of a child on the autism spectrum, you're used to your child moving, but often in a manner that may not be in sync with the rest of society. In this special world, there are arm-flappers and toe-dancers and body-rockers, among others.

I have a sprinter.

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My son, who is now 14 years old, technically hits some end of the autistic spectrum, with the old classification of Asperger's syndrome probably being the closest label that could fit my brilliant, quirky young man.

During almost his entire life, my Aspie has sprinted instead of walked. Sometimes I think he was born sprinting and his crawling is part of my imagination, some fanciful dream implanted in my mind to make me believe I have what some people still refer to as a "normal" child.

My son runs from car to school, from class to class, from house to car—anywhere he needs to go. He used to sprint home a mile from school every day. The townspeople in our little village could set their watches by the redhead zooming down the sidewalks on weekday afternoons. Well, unless he was engrossed in a fantasy novel. Then he could walk and read all the way home. See, my son can walk if he has to, but that's not his first impulse.

I decided long ago not to mind his need for speed. Something about the movement itself feels good to him, so I let him go. I once asked him why he sprints everywhere and he simply said, "I just like to be quick."

It wasn't always this way. The sprinting used to be dangerous when it came from anxiety. Those early grade-

If there's one thing you learn as the parent of a child on the spectrum, it's to cling to hope.

school teachers needed to be part therapist, part Usain Bolt. Because my son would bolt. The wrong assignment, the wrong page, the wrong look, the wrong word and he was out of there, running, sprinting the halls until he found someplace to hide and calm down.

Once, it took 40 minutes before they found him under a desk in the darkened computer lab, just breathing and listening to the hum of the machines. There he felt safe. But meanwhile the rest of the school was on lockdown. Eventually he matured and some teachers got wise. Once when he bolted, a teacher simply yelled after him, "I'm too old to chase you. Just stop." And he did.



Danell Marks

Movement can calm some children, giving parents hope that exercise might help kids on the autism spectrum.

Movement is a blessing and a curse to kids like mine. My son wants to move, feels compelled to move, but because his limbs and fingers and toes don't work in perfect unison with what he sees in his brain, the result of movement is often frustration.

So when Harvard researcher Dr. John Ratey talks about the importance of training autistic children "to teach them coordination," I think, "Yes! This could help my son." When Ratey says, "They are very uncoordinated, that's a big problem: their cerebellums are off. But you can train the cerebellum," I think, "Hooray!" This sounds like what my son and other kids like him need. Maybe the cerebellum does hold the key to improving their movement, and maybe that leads to improving their lives. It's worth a try.

If there's one thing you learn as the parent of a child on the spectrum, it's to cling to hope. You also learn to try everything and anything that might help your kid.

I sat in an Individualized Education Program (IEP) meeting one day and jumped out of my chair to demonstrate burpees to two teachers, a psychologist and the school principal. My son needed something to do when the anxiety started to

STR / AFP / Getty Images



Some children are simply compelled to move, and physical training can give them an outlet for their energy.

rise and his breathing became shallow and his hands started to clench, some movement to help him calm down, breathe through the fear and quell the urge to run. We came up with burpees. His team watched and then wrote burpees into his program. Any time he felt anxious, my son was allowed to give a hand signal to the teacher and step outside the classroom door to do five burpees in the hallway. A perfect solution? No. But it was something.

Now he's in the eighth grade and doesn't want to leave the classroom for burpees. But he needs more physical activity to help settle his body and his brain. He's still not that interested in CrossFit ("Oh, please. That's what my mother does.") but I'll be signing him up for CrossFit classes again. I figure he should like the sprints.



About the Author

Lisbeth Darsh is a writer and editor for CrossFit. She also blogs regularly at Wordswithlisbeth.com.

THE CrossFit JOURNAL

Leading From the Back

During the CrossFit Games Open, a lot of attention is focused on the athletes who finish on top. But could we learn even more from those lower on the Leaderboard?

By Maureen O'Hagan

April 2014



Shaun Cleary

Josh Bridges completed CrossFit Games Open Workout 14.5 in 7:49.

Samantha Briggs did it in 8:31.

And Cori Creran from Clifton, New Jersey, took 1 hour, 28 minutes.

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Is she 10 times less fit than Briggs? Or is there a chance we've been looking at this all wrong?

Before you answer, think back for a moment to 14.5: burpees and thrusters, that diabolical combination, for 84 reps each. You probably have your own choice words for it. Awful. Horrendous. A death march from the first set to the last.

Did it take you 15 minutes? It probably sucked for all 15. Thirty? Same answer. Now imagine doing it for even longer. You're sucking wind. Quivering. Nauseated. For an hour or more. Get the picture?

"It takes a lot more energy and strength to do what Cori did than to finish in 10 minutes," said fellow CrossFit Passaic Valley athlete Jacqueline Bruno, who witnessed the entire thing.

Creran knew long before the clock started she'd be the last finisher in her box. She was 47 years old and had come to CrossFit weak, overweight and in pain from a bum knee. But she was hooked instantly. Then, last July, she had a kidney infection that turned septic. By the time she left the hospital, she could barely walk up stairs.

She signed up for the Open because it was a way to really

commit—which is exactly what she did. A financial analyst, she likes to do things methodically, to dig into the facts and understand how things work. Before the workout, she studied the videos and got pointers from her coach, Pete Hasselberger. She thought she had it figured out.

"I had a plan in my head," she said.

Four reps a minute, she told herself, that was the goal. It'd be all over in about 40 minutes.

Wrong. Her plan was toast from the word "go."

It was the thrusters. The weight, 65 lb., was her max overhead. She could pull off one thruster but would fail at the next. It was killing her time—not to mention her energy. In the first set, she missed at least a half-dozen attempts. But she kept plodding, kept trying to string them together.

Finally, she reached 21 thrusters. She dropped to the mat and began her burpees. After the thrusters, they came almost as a relief, a slow, methodical march toward 21.

Looking around at that point, she realized others had already finished their workout. She glanced at the clock.



Cheryl Boatman

Scenes like this could be found all over the world as affiliate members banded together to cheer comrades through Workout 14.5.

Alicia Anthony



Workout 14.5 was a test of fitness, but it was also a test of mental fortitude.

Nearly 24 minutes had gone by. She was feeling breathless and weak. And still way off her mark.

"How long am I going to stick this out?" she asked herself at that point. "Can I stick this out?"

Bruno, who was judging, thought Creran might quit there.

"You could see in her face she was hurting," Bruno recalled.

But Creran picked up the bar once again. Bruno was floored.

"Every single time, it was all of her energy and strength to get that bar into a clean, squat down and push it over her head," Bruno said. "It was her max. And she did it how many times?"

Bruno was sweating just watching. When she had done the workout earlier that morning, she wanted to quit, too. She managed to finish in 18:06, but it felt like torture. If she were in Creran's shoes, she thought, she'd give up.

But Creran kept going.

"A couple times I broke down because I didn't think I was going to be able to do it," she recalled. She felt a wave of dizziness with every thruster.

The tears began to flow.

Hasselberger knew what was going on. It was the chatter, that fusillade of emotions and rationalization that bombards our psyche in moments of doubt.

"We've all heard the voice inside our own head," he said. "I know the tone of it, the dialogue that was going on." He told Creran to breathe.

By the round of 15, she was aching.

"That fear, that doubt, that exhaustion," Creran recalled. "I thought, 'I could easily quit this. Why am I doing this?'"

She looked at Bruno.

"Get out of your head," Creran recalled the judge telling her.

Creran kept going. Her body ached, and a wave of dizziness came over her with each thruster.

"In the scheme of things, it didn't really mean anything" to finish, she said later. "But it meant everything. If I didn't finish, I couldn't get a score."

She also realized something about herself: "I quit things before in my life, and I regretted it."

So she continued. Hasselberger came up with a new plan. Forget about stringing thrusters together, he told her. Do one thruster, drop the bar and rest; another thruster and rest. It gave her a focus, a new goal.

"I made a deal with myself," Creran said.

As long as she could get the bar overhead, she wouldn't quit. Thruster, rest. Thruster, rest. But if she kept failing, she could stop.

"It just seems to me that you get into a mode," she said. "Keep chipping away and you just keep going."

Nearly 90 minutes later, Bruno, Hasselberger and another athlete, Dominick Azzolini, were still there with her.

"I don't want to disappoint them," Creran said. "It was hearing them cheer me on. You're doubting yourself. And you're thinking, 'There's no way in hell I'm going to get through this.' To me, that's what the whole community is about. They want to see you succeed."

She had gotten through 21, 18, 15 all the way down to her last set of three thrusters. Creran dropped the bar for the last time.

"On the ground," Azzolini yelled. "Three burpees. And then you're done!"

Shaun Cleary



For many, the pain of Workout 14.5 slowly turned into a long-lasting sense of accomplishment. But only after a solid five to 10 minutes of writhing on the rubber.

Bruno was jumping up and down, thrilled.

"It was an incredible thing to watch," she said. "It was humbling."

For her, it was an "a-ha moment."

"With CrossFit you sometimes become so obsessed with your score and RX-ing it," Bruno realized. She was guilty of doing so herself. "But it's not always about time, whether I'm the top finisher in the box. It's your own personal satisfaction, your own competition with yourself. And finishing a workout is a big deal."

"It was awesome to watch."

Finally, Creran was finished. One hour, 28 minutes, and 28 seconds of awesomeness—and awfulness. And now it was behind her.

"It was a celebration," she recalled.

Bruno sent out a flurry of texts.

"I just witnessed the most amazing thing," she told fellow gym members. "To watch her do that and not give up, that was a lesson for all of us."

When the excitement wore down, Creran admitted she felt a moment of embarrassment. It took her that long? Then her phone started to ping.

"Awesome!" one friend texted. The messages kept

coming. And Creran, at home with bags of ice on her knees, started bawling.

"I had my personal reasons for not quitting," she explained. "But I didn't realize how much it meant to everybody that I keep going. I think it meant more to them than it did to me."

Champions, All

Now, back to the original question: what is fitness? What is true strength? Who's the biggest badass?

We celebrate the best in the world, people such as Rich Froning, Josh Bridges and Sam Briggs. We marvel at their physical prowess. We rain accolades on them.

But maybe it's time to take a good look at the athletes around you. There's probably a Cori Creran in your box, too.

"Like I said, it doesn't really mean anything in the scheme of life," she said. "But it means everything moving forward. You had a plan and you conquered that fear. And you made it."



About the Author

Maureen O'Hagan is a Seattle-based journalist who is the recipient of numerous national writing and reporting awards. Skeptical by nature, she tried CrossFit for a newspaper story in 2009. Now she's hooked.