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Hack It Up?

Chris Cooper examines belts, squat suits and knee wraps for CrossFit athletes.

By Chris Cooper

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Staff/CrossFit Journal

This year at the CrossFit Games, athletes will bolster their courage with meditation, concentration, HTFU and sometimes prayer.

Some will also brace their backs with leather, their wrists with reinforced nylon or their asses with polyester briefs.

But should they?

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Support Me

Supportive gear—belts, wraps and physio tape—might help an athlete lift more weight, do more reps and fatigue more slowly. For example, a lifting belt can provide backup for the transverse abdominis, in theory allowing for more load to be moved before postural breakdown. Some athletes swear that physio tape, properly applied, can ease the eccentric portion of a cyclic exercise such as high-rep overhead presses, though science has not backed that claim. Supportive briefs may provide a little help with hip extension And so on.

But do these “aids” actually provide an advantage? If so, is it an unfair advantage?

Powerlifters are the kings of “equipped athletics.” From the earliest Inzer bench-press shirts, powerlifters have introduced supportive gear in the name of safety and tweaked it in the name of progress. Different powerlifting federations allow different levels of gear—including drugs—to be used during meets, and neophytes often need more

than a bit of help in understanding why two burly men are helping pull a third into a squat suit before the latter waddles over to the monolift for his attempt.

“We take every precaution we can, and we take every advantage.”

—Louie Simmons

Louie Simmons, owner of Westside Barbell and one of the most respected names in powerlifting, believes supportive gear is more than fine, even when training for competitions that don’t allow the gear used in training.



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Science has not revealed whether physio tape is anything more than a placebo or fashion accessory.



When the weight gets heavy, many CrossFit athletes break out belts, knee sleeves and wrist wraps.

“Even if we can’t use it in competition later, it will make you stronger if you use it in training,” Simmons said. “CrossFitters training with weight should be using squat briefs. Even if they’re not competing in powerlifting, they still need some kind of protection. The bottom of my briefs is at my thigh; the top is at my belly. If I could train with 50 percent more weight all the time, everywhere else but the briefs (is) going to get stronger. You’re handling weights immediately that it might take you three years to build up to otherwise.”

Simmons isn’t talking about standard compression shorts but rather squat briefs: dense single- or double-ply polyester briefs that usually have to be pulled over your legs with assistance.

“We take every precaution we can, and we take every advantage. ‘If it’s not an advantage it’s a disadvantage’—that’s a quote from Shane Sweatt,” Simmons said, referencing a trainer who is also married to elite female powerlifter Laura Phelps-Sweatt.

Freebirds

Not all powerlifters believe that equipped lifts are the best test of strength. The American Amateur Powerlifting Federation (AAPF) is the unequipped, steroid-tested little brother of the American Powerlifting Federation. At the AAPF Nationals event on April 27, 2013, powerlifting enthusiasts were treated to a new show: a fitness competition held by CrossFit 616.

On the main stage, lifters in Inzer and Titan singlets and belts squatted out of a massive red monolift with weights approaching 600 lb. Across the room, crowds cheered more loudly as young women in sports bras attempted cleans and jerks below 170 lb.

Ezra Salmon, event promoter for the AAPF meet, had his own opinion on CrossFit athletes using gear in competition.

“If they’re going to use supportive gear, they’d have to train in it. You can’t just put on a squat suit and expect magic,” Salmon said.



Chris Cooper



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Two extremes: a female lifting with no supportive gear (top) and a male powerlifter preparing for a max-effort squat.

This is the crux of the argument against training with supportive gear: that the lifter must adjust and tune core movement to the nuances of the equipment. While uneducated critics of powerlifting will claim “the equipment does all the work,” lifters are quick to point out that a shirted bench press isn’t equivalent to an aided raw bench press. You can’t just magically put on a bench shirt and put 200 lb. on your PR, a point illustrated in the *CrossFit Journal* video [The Two-Ply Shirt](#), published Feb. 4, 2011.

“It’s a fine balance between what will help and what will stop me from moving efficiently.”

—Corey Franklin

At the CrossFit 616 event, affiliate owner Corey Franklin said he doesn’t believe supportive gear offers an unfair advantage—or much of an advantage to CrossFit athletes at all.

“We did allow belts for the lifting portion this weekend—max clean and jerk,” Franklin said. “We had a guy wear a belt for the deadlifts in the deadlift/burpee/sprint triplet yesterday. I don’t think it gives them an unfair advantage. Some people like them; some don’t. I don’t think it’s going to add weight to their total like a shirt or suit would. Most of the time, CrossFitters want to be free and clear. He wore it through the burpees and everything, which you think would be difficult.”

Franklin wears knee sleeves in training.

“I’m 48, and I wear knee sleeves to keep my knees warm. But for the most part people want to move without restrictions. It’s a fine balance between what will help and what will stop me from moving efficiently. If someone trains with (various pieces of equipment) every day, I’d encourage them to use them in comp as well, or they won’t know how to use them.”

Mike Carroll is a competitive powerlifter who qualified for Regional competition with his team, and he was at the 616 event. He knows the difference supportive gear can make.

"When I first started powerlifting in 2005, I was equipped with two-ply gear in the APF. I knew that it came with the sport. But when I got into CrossFit, the reason I was attracted was its purity: taking your abilities that you've trained through years and years and applying that without the help of a shirt, suit or deadlift suit," Caroll said. "For myself, getting into a weight belt restricts my range of motion. I like to feel loose and get anchored."

He added: "I think you should not use a belt as much as you can, especially in CrossFit, where we do a lot of front squats and snatches and incorporate stability into everything. If you were to wear a belt in training all the time and then take it off in a comp, you might miss a lift or not get as many reps."

Gear at the Games

"There are very few elements that we test singularly," said Justin Bergh, General Manager of the CrossFit Games. "Any type of device—grip, shoe, belt—you have to deal with that same product through multiple exercises, not just a single heavy lift. An athlete won't know the events in advance, so it's hard to rehearse. Especially at this level, a couple of seconds or an equipment malfunction could cost a podium spot."

One good example came in the 2010 CrossFit Games, when athletes were put through an extended version of Helen that approached 20 minutes. Immediately after completing that event, athletes had but 90 seconds to register a max shoulders-to-overhead lift. Even taking time to strap on a belt would have cost precious seconds, and there's no guarantee doing so would have added a single pound to the lift.

"The CrossFit Games is a test of the Fittest on Earth. It's a test of human capacity, not a test of equipment," Bergh said.



In official CrossFit competitions, gear is allowed provided it is for safety or comfort and does not confer an advantage.

How to Use a Belt

The primary function of a belt is to act as a second transverse abdominis.

Powerlifters know that a wider base of support equals a safer spine. Chiropractors call this "the ship's mast model": on a schooner, the guy wires supporting the mast should extend as far to the edges of the boat as possible.

Paul Chek used another analogy: when pitching a tent, you tie a line between two vertical sticks and drape a tarp overtop. To make it sturdy, do you peg down the ends close to the sticks (narrow) or as far away as possible (wide)? Of course, the answer is wide.

To that end, a lifter shouldn't narrow his or her base of support by drawing the abs in with the belt. The ideal belt set-up is one that holds the trunk tightly but creates the widest base possible. Set a belt snugly, but constriction should be felt mostly when the abs are pushed out against it.

This abdominal action serves another function: it pushes the diaphragm up and the pelvic floor down, tightening supporting musculature around the thoracic and lumbar regions of your spine. When these are all tight, a lifter has good support. When any muscle group is less tight than the others, it is obviously a weak spot.

A good belt shouldn't be narrow in front and wide in the back. Lower-back muscles are supported by a trunk that is tight all the way around, not because they, specifically, are covered. To that end, a wide belt all the way around is ideal. You wouldn't see powerlifters wearing a "flared" belt. In fact, they laugh at those guys. It may be harder to fit a Superman logo on a 3-inch or 5-inch belt of consistent width, but the support is better.



Staff/CrossFit Journal

Some top CrossFit athletes keep gear to an absolute minimum, even during the arduous tests of the CrossFit Games.

A.J. Roberts, who holds the world record for the greatest powerlifting total of all time (1,205-lb. squat, 910-lb. bench and 815-lb. deadlift as a superheavyweight), trained at Westside Barbell with Simmons. He competed with supportive gear from the beginning and became, according to Simmons, masterful in its use. He's since switched to CrossFit training and competitions, and his attitude has similarly changed.

"When you start to add in a significant amount of gear, your training begins to change. You can't throw stuff on and expect magic. Even knee wraps change your technique," said Roberts. "If you're squatting 16 times a month, and you wear equipment once per week, you're down to 12 times a month without equipment. It's a different movement pattern; you begin to train for the gear. That's not synonymous with the CrossFit mentality."

Simmons, on the other hand, is all about strength and sees no problem with equipment in a sport focused only on maximum efforts in three lifts only.

"You want to leave it all up and be Mormons, that's fine. That would be CrossFit's rules. Tape is probably helping people the most right now," Simmons said in his inimicable style.

**"Belt, knee sleeves—but
anything else is too much."**

—A.J. Roberts

But if Roberts had no issues suiting up for a monster squat, he isn't comfortable with using equipment in CrossFit competitions.

"You're going to get away from 'Fittest on Earth.' You want to test the true human potential without help. ... The skill of using the equipment, that variable is part of the game. When you're getting into CrossFit, that's not what you're testing. 'For the swim, can we wear the super suits? Why can't I bring my own bike?' It's a can of worms that you can't control. It's better to keep it out. Belt, knee sleeves—but anything else is too much. I can figure out hacks and ways to cheat it with equipment."

Many would echo Roberts' sentiments, including Bergh.

"There's an elegance in good programming" Bergh said. "There's nothing elegant about watching a guy walk out in knee sleeves, a squat suit, a belt, elbow wraps and a neck guard. This isn't *American Gladiators*. It's about testing athletes in a series of unknown yet measurable physical tasks. It's the human body expressing power."

In 2013, athletes at the CrossFit Games will be permitted to use some supportive gear. According to the [CrossFit Games Competition Rule Book](#): "Subject to CrossFit's prior approval, non-branded belts, non-tacky gloves, hand tape, neoprene joint sleeves and common fitness wear may be allowed during competition. However, no grip assistance or weight support may be derived from any device worn. In general, gear is allowed that improves safety and/or comfort, but does not confer advantage."

For example, leather gymnastics "grips" are allowed, as they protect the athlete's hands from rips. Devices that help the athlete maintain their grip on the bar are disallowed, such as gymnastics grips containing dowels that make gripping a bar far easier. Viewers at Regional events may have noticed judges rubbing the palms of all competitors before events involving pull-ups: they were checking for sticking agents.



Staff/CrossFit Journal

"This isn't *American Gladiators*." —Justin Bergh, General Manager of the CrossFit Games.



Staff/CrossFit Journal

Physio tape may be like high-end workout apparel: it looks cool but doesn't provide any physical advantage.

Physio tape is similarly allowed because it doesn't provide an advantage. In fact, it might not do anything at all.

"It does look awesome," said Leslie Trotter, president of RockTape, a sponsor of the CrossFit Games in 2013. She attests that taping provides a proprioceptive cue when the athlete is moving incorrectly; it doesn't support the joint directly.

"The use of kinesiology tape likely does 'help' athletes . . . There is too much anecdotal support to reject it. Research just doesn't point exactly to the mechanism yet, so applying tape is still as much art as science," she said.

Researchers would agree, at least on the last part of Trotter's statement, and some have even suggested the tape is actually just a placebo or fashion trend. ([The bizarre tape that has adorned Olympic athletes: Researchers say there is "no evidence" it works.](#))

Gear Down?

Under the hot California sun in 2013, some of the world's fittest will cinch up their lifting belts in the final moments before competition. Others will be bound only by the philosophy of the athlete as a whole and complete being, unsupported by leather, polyester or rigid cotton. Indeed, ancient Greek athletes competed naked.

The use of supportive gear, where permitted, is a strategy that may be as flimsy as a security blanket or as solid as a back brace depending on the athlete. But with CrossFit's minimalist approach to equipment and various tests of overall fitness, A.J. Roberts' words still ring true:

"The best athletes will always be the best athletes."



About the Author

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