



PHOTOS COURTESY ALLEN HEDRICK, US AIR FORCE ACADEMY

# Is Strongman Training *for You?*

A look at the benefits and pitfalls of one of the latest fads by **Kim Goss**

*“Win or get fired!”* is a motto that seems to have taken over the coaching profession. In the pros and in college a losing season is forgivable, but if you’re below .500 twice in a row you’d better start thinking about putting up a “For Sale” sign in front of your home. There is enormous pressure for a coach to succeed, and not just in the professional and collegiate ranks. Even at the high school level, the pressure to win may prompt a coach to stray from conventional training parameters.

Where that may lead a coach is anybody’s guess: Some search for an edge by looking beyond the exercises used by powerlifters, Olympic lifters and sprinters. In the years since strength coaching has been recognized as a legitimate profession, we’ve seen coaches try everything from Pilates to Swiss balls to oxygenated water.

One reason some fads persist for so long is that there are many factors that influence the outcome in sports and it’s difficult to attribute success to one single

factor. The University of Utah was undefeated in football last season, but are they struggling this year because their coach moved on to the University of Florida, or because they lost so many outstanding starters, including quarterback Alex Smith, who became the number-one pick in the NFL draft? And whereas last year the University of Oklahoma was in the national championship game, this year they are not even in the top-25 polls despite the return of their head coach and 2004 Heisman Trophy finalist Adrian Peterson.



Strongman competitions consist of unusual events designed to test strength in activities people can relate to, such as lifting stones. (DAN BRYANT PHOTO)

Such uncertainty is one reason coaches become susceptible to straying from the basics and trying the latest fads. And one such novelty that is currently capturing the interest of strength coaches is strongman training.



Canadian strength coach Mario Greco says that instead of strongman training, a better way to develop leg drive for running would be the use of pushing and pulling sleds. Shown here is a push sled he designed that is being tested at the Poliquin Performance Center in Boston.

## The Downside of Strongman Training

As with any new training method, BFS believes that coaches should look with a skeptical eye at strongman training before including it in workouts as auxiliary exercises. Playing devil's advocate, here are some of our concerns.

**BUDGET.** Although many athletic programs make their own strongman equipment – a practice that raises all sorts of liability issues – chances are if you want some of this equipment, you're going to have to buy it. But how many high school programs have all the necessary equipment to perform the core lifts with their athletes, much less auxiliary training with strongman equipment? Do you get a few strongman logs, or another power rack? A set of farmer's walk handles, or bumper plates?

**STORAGE.** Have you ever met a strength coach, at any level, who thought their weightroom was “too big”? What you'll find at many high schools are simply too many athletes in too small a space, creating a safety issue. Creative scheduling helps, but the point is that many of these strongman tools take up a lot of space. Do you store them outside, in a large closet or in the corner of the weightroom when not in use? In one issue of *BFS* we featured a school that had equipment, but no weightroom! They would store weights in a closet in the hall, and when school was over, they would pull out the weights and lift in the hallways!

**SAFETY.** Not only must athletes be

trained to safely practice and spot strongman exercises, coaches must address the fact that there can be a high risk of injury with some of these events – especially tire flipping, in which there is the possibility of the tire falling back on the athlete, or injuring the biceps when improper flipping technique is used. Just ask Gagné.

“I work with a lot of high-level athletes in hockey and football, and there's a great-enough risk of injury with those sports that I don't want to risk injuring them in the off-season with strongman training. Only if an athlete has an adequate base in Olympic lifting would I consider performing these movements, and I wouldn't perform them year-round.” In fact, Gagné says that despite his own skill in the exercise and his knowledge of proper warm-up techniques, he almost snapped a biceps tendon while practicing the exercise. Art McDermott agrees.

Coach McDermott, owner of the Poliquin Performance Center in Boston, is one of the foremost experts in the world on strongman training and is writing a book on the subject. Says

Erin Warnick from Dallas, Texas, was a figure skater who used Olympic lifting to enhance her athletic ability.

McDermott, “There are too many people using strongman techniques without proper training. It would be like my mom trying to show someone Olympic lifting — you can expect the worst to happen!”

**SCHEDULING.** Then there's the issue of time limitations. Often many coaches we interview get their weight training in during the day in class, which means their athletes are usually limited to about 45-minute training sessions. Could strongman training detract from their results? I posed this question to New Mexico Head Strength Coach Mark Paulson, who has been with the Lobos for 19 years. Coach Paulson said that even at the collegiate level it's hard to get in the basics of football conditioning, such as weight training and running, let alone do supplemental strongman training.

In high school, often coaches have their athletes lift during the school day within a separate weight training class. But with only 45 minutes, not much more can be accomplished other than the core lifts and a few auxiliary exercises.



(REG BRADFORD PHOTO)



If you haven't spent much time watching midnight telecasts on ESPN, strongman competitions consist of unusual events designed to test strength in activities people can relate to. In the past there have been events such as pulling buses, lifting the ends of cars, tossing tires and running with refrigerators. Now there are more standard events, and prize money is getting respectable to attract the best athletes in the world. Josh Bryant, one of the strongest young powerlifters in the world and who was featured in our Spring 2004 issue, is now actively involved in this sport.

Despite the difficulty in predicting sports success, with strongman training we can at least examine some of the pros and cons to help you determine if it should be a part of your program.

## Does Strongman Training Work?

One of the most vocal advocates of strongman training is Allen Hedrick, strength coach at the Air Force Academy, who has been implementing strongman training with his athletes for the past five years, starting with water-filled barrels, then tractor tires and logs. On a brief visit to the Academy this summer I saw an impressive arrangement of heavy tires, kegs and other strongman apparatus. Says Hedrick, "We use this type of training to supplement our emphasis on barbells and dumbbells, not as a replacement."

The rationale for including this type of training is that Hedrick believes that the resistance is active, compared to the static exercises performed with barbells. One example he provides is the water-filled barrels. As the barrel is lifted, the water shifts and makes the activity unstable. Although there is little scientific research available at present to evaluate the effectiveness of the active resistance of strongman training compared to the static resistance of barbells, Hedrick believes that in sports such as football, this type of training would be more sport specific because athletes

encounter active resistance in the form of opponents.

"The ability to demonstrate maximal 1-rep strength is only important in the sports of Olympic lifting and power lifting. In football – and most if not all other sports – functional strength is more important than 1-rep barbell strength.

Having my athletes bench press or squat with a keg may not be the best way to increase their ability to demonstrate max 1-rep strength with a barbell, but I believe it does build a higher level of functional strength." Hedrick also believes that such training has resulted in fewer injuries, citing that only two of their players required knee surgery this year.

Although there are many proponents of strongman training, it does have its critics. One is Mario Greco, an accomplished strength coach from Canada who has worked with many world-class sprinters and professional hockey and football players. Coach Greco believes that strongman training is not the panacea of athletic enhancement.

"The duration that most of these exercises are performed makes it impractical to use them for maximal strength training," says Greco. "You don't perform a farmer's walk or a tire flip for one rep, so the recruitment of the fast-twitch motor units cannot be as high as you're able to achieve in conventional weight training. I also see little value in this type of training for improving agility or running speed, and for that matter the skills that are required for football linemen. In football, linemen are continuously driving through with their legs, and they are reacting to the actions of their opponents. If you want to really get more

sport specific, have offensive linemen practice speed bag work and defensive lineman practice grappling or wrestling drills."

Asked what auxiliary exercises he uses with his athletes, Coach Greco says he uses a "power acceleration sled" he designed to improve leg drive by reducing the involve-

ment of the arms, as occurs in sled dragging. Resistance can be accurately increased by a braking system on the wheels and by adding additional weights. Greco says that pushing such a device, which is more practical than many because it can be used indoors, appears far safer and more sport specific than flipping a tire. "I can also quantify my results with a stopwatch – if pushing a sled didn't make my athletes run faster, I would know it." [Note:



Canadian strength coach Paul Gagné, shown here working with a professional football player.

If you want to know more about Mario's research with sled training, he can be reached at [mgreco@idirect.com](mailto:mgreco@idirect.com).)

Another strength coach who challenges the idea of sport-specificity is Paul Gagné. Gagné's client list includes two of the best golfers in the world, Michelle Wie and Michael Campbell; Olympic champions in figure skating; and over 100 athletes in professional hockey and football. Says Gagné, "One problem with saying that strongman training is sport specific is that the grips used often depress neuromuscular activity. With a barbell or a dumbbell you are always able to apply the precise amount of tension you want because your hands are closed. If you flip a tire, your hand is open, which reduces the neuromuscular activity. For sport-specific training, I would rather rely on complex neuromuscular exercises such as the Olympic lifts. So I would say that if you want to train the energy systems, strongman training is fine; but there are limitations to applying strongman training to sports."

**COACHING.** Just as you don't send gymnasts into a room and say, "Play gymnastics," you shouldn't do the same with strongman training. But where do you learn how to do this stuff? From reading a magazine article? Of course not. Hands-on training is key to proper coaching, but do you simply look up "strongman training" in the Yellow Pages and hire a coach? Fly to Canada perhaps for a private session with Paul Gagné?

And how do you evaluate the abilities of someone teaching strongman techniques – by how fast they can flip a 400-pound tire?

Such is the nature of sports that it's difficult to isolate single factors that make the difference between winning and losing, and our conclusion is that strongman training for athletes is a relatively new trend with little scientific research to support its use. Maybe we'll

come across reports in the future that indicate strongman training is a key factor in the success of many high school athletic programs. Maybe the answer is in being conservative, trying one or two strongman events at a time during any given workout. We certainly know what has worked in the past to develop champions, but with strongman training only time will tell whether it will earn a place at the high school level. **BFS**

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