

The Evolution of *Endurance Sports*

A world-class coach explains the best way for athletes to go the distance

In the '80s there was a group of endurance-sport athletes and coaches who were often called *purists*, purists in the sense that they believed the best way to train for their sport was the sport itself. A distance runner who was a purist, for example, believed that weight training was a waste of time and that the only supplemental form of conditioning worth their time was stretching. Preparing for a 10K? Run a lot. Preparing for a marathon? Run a lot more. But as the level of performance has increased in sports that focus on the aerobic system, as it has with all sports, there has been a need for a paradigm shift in the way the best athletes are training.

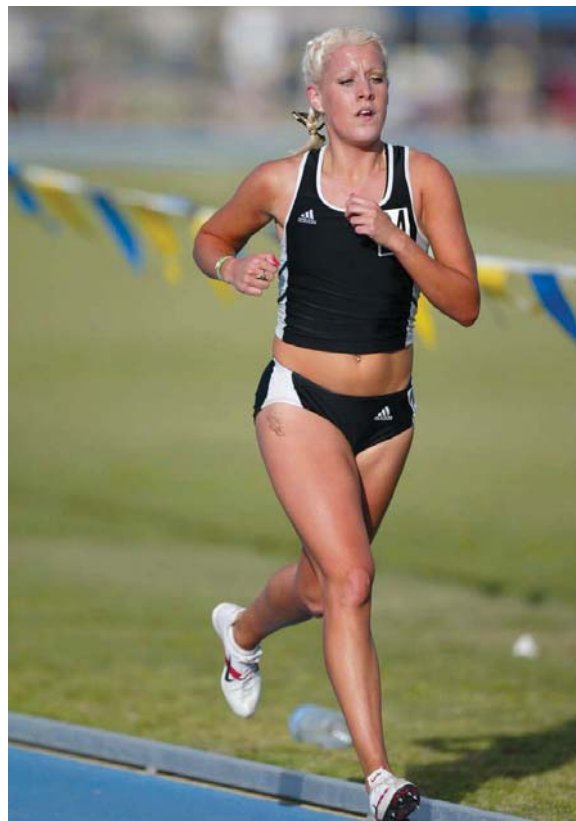
At the forefront of this training is Adam Zucco, director of coaching for TrainingBible Coaching. Zucco specializes in training endurance-sport athletes such as cyclists, distance runners and triathletes. He has a base of athletes at the Provena Mercy Medical Health and Wellness

Club in Aurora, Illinois, but he also travels across the world to work individually with elite athletes. Fifty-five coaches at four satellite centers work under Zucco, training a total of 150

kids and 300 adults.

In regard to training methods, Zucco says that endurance-sport athletes have to get away from the misconception that any weight training program will cause them to develop the muscles of a bodybuilder. "First, I would much rather race with a V8 engine than a V6, even though the V8 is probably going to be a little heavier," says Zucco. "It also takes a lot of work to add just a pure pound of muscle in the weightroom, and with the controlled amount of weight training we do with the BFS program our athletes are not going to be presented with the opportunity to bulk up."

Next, Zucco says that because the types of injuries most commonly incurred by endurance athletes are related to overuse, weight training is essential for his athletes. "Since putting my young triathletes on the BFS program, I've seen not only a drastic improvement in performance but a reduction in injuries as well. Also, a lot of athletes I work



University of Idaho SID photo

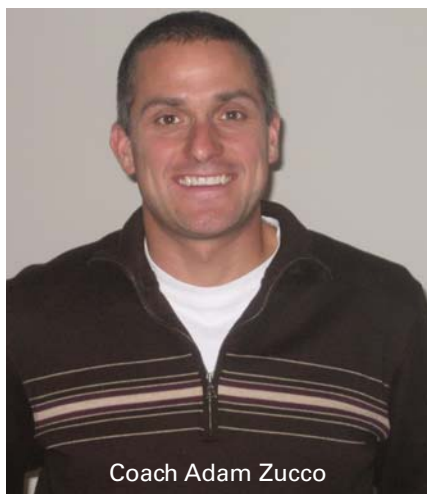
University of Idaho's Dee Olsen won the 2006 WAC championships in the 1500m and the 10k. Olsen is a product of the BFS system, having used the program under the direction of BFS Clinician Roger Freeborn while attending Estacada High School in Estacada, Oregon.

with don't have a lot of time to train, and weight training is a very efficient way for them to overload the muscles." This overload, adds Zucco, is especially important to cyclists.

In cycling, Zucco says, stronger athletes can make up for lost time, or expand a lead, because they can more easily handle hills and accelerate quickly at key points of a race. "With marathoners you are not going to have the sudden bursts of speed as you will in cycling, but a stronger runner will be able to more easily maintain their form on hills. So much of running performance is based upon efficiency, and the more a runner's form breaks down due to fatigue, the more energy it will take to run and the more likely the runner will be susceptible to injury."

Besides strengthening muscles, weight training may create possible hormonal changes that could benefit endurance-sport athletes, says Zucco. "I know that undulating periodization programs such as BFS have been proven in studies to improve the subjects' ratio of testosterone [male hormone] to cortisol [stress hormone]." Zucco believes that along with the confidence of going into the weightroom and continually breaking personal records with the BFS program, these hormone changes give his athletes more confidence and enable them to train harder and to recover faster.

To be objective, Zucco adds, strength training is just one variable that coaches must be concerned about. For example, one of the most common ailments among cyclists is lower back pain. Although stretching and strengthening exercises can help, often the problem can be traced to the bike itself. "One of the things that I do with my cyclists is to get them a proper bike fitting from a professional. A proper bike fitting, along with stretch-



Coach Adam Zucco

ing and strength training, will give a cyclist the best chance of avoiding issues with lower back pain."

Although the wealth of knowledge Zucco has would fill volumes of textbooks, he does have some simple, practical advice for coaches who work with young endurance-sport athletes. "The most important thing you have to work on with kids – and I know this is an unpopular statement – is to make sure their form is correct. After that,

strength is a major issue. When I start working with kids, their muscles may be so weak that when they try to squat, without any weight at all, their knees shake and collapse inward – there is no way this type of athlete will be able to support a good running posture until they improve their strength." Then there is the issue of overtraining.

"So often I'll see coaches who have good intentions, but they try to throw an amazing volume of training at these kids because kids are resilient and can handle it," says Zucco. "I want my athletes to be competitive, so I give them as much as their body needs to accomplish their goals but no more than that. If X plus Y equals Z, why throw a W in there just for the sake of throwing in a W? When you throw too much at kids at a young age, they get burnt out really quick and will often quit the sport, and that's a shame. One of my main goals is for them to be still doing and enjoying the sport when they are 30 years old." BFS

Joe Friel and Adam Zucco are partners in their company, TrainingBible Coaching. Here are a few of the popular training books available through their company.



Joe Friel

Create personalized, sport-specific workouts using the most successful Set-Rep Computer Software Program ever created.

Beat the Computer Pro[®]



Here's how it works



Athletes fill out a form listing current core & auxiliary lifts.



Enter the lifts into the computer, which calculates the precise weights for each set and creates individual, sport-specific workouts.



At the beginning of each week simply print out the athlete's BFS Set-Rep Program weekly workout schedule.

Here's what you get

10/1/2005 1:59 AM

Beat the Computer Pro-Workout Test Sheet
East Side High School
Bigger Faster Stronger

Name: _____ ID Number: _____ Sex: _____
Address: _____ Weight: _____ Height: _____
Phone: _____ Grade/Period: _____
City, St, Zip: _____
Weekly Workout Schedule: _____ Sport: _____ Position: _____
Number of Workout Days per Week: _____
Sheet (2 sets) or Long (3 sets) Workout: _____ Sport: _____ Position: _____
Number of Weeks in Program: _____ Parent's Name: _____
Date to Begin Program: _____

Core Lifts
Select a weight for each core lift that is challenging enough to get between 1 and 10 reps on the Bench and Squat exercises, and between 1 and 3 reps on the Free Bar Dead Lift and Power Clean.

Core Lift: _____ # of Reps: _____ Weight: _____ Date: _____

Parallel Squat _____
Bench Press _____
Free Bar Dead Lift _____
Power Clean _____
Bench Squat _____
Towel Bench _____

Speed and Flexibility
Enter Your Scores in the following events:

Event: _____ Score: _____ Date: _____

25 Yard Dash _____
40 Yard Dash _____
Dot Drill _____
Vertical Jump _____
Long Jump _____
50 and Reach _____



2 Enter athlete's lifts into the computer

October 16, 2005 1:49PM

East Side High School
Weekly Workout Schedule for the week of October 17, 2005
Bigger Faster Stronger

Athlete Information
Deans, Carter ID Number: 2 Grade/Period: 9 1
3875 W. Mercer Way Sport: FOOTBALL CB WR
Mercer Island, WA 98040
Week # 9 of a 18 week workout. Workout Schedule: FB-D

Notes on the Workout

For Core Lifts: For Squat and Bench lifts, we recommend a max of 10 reps, and for Dead Lifts and Cleans, a max of 5 reps. Use the weight and reps shown for each set, except for the 1st set. On the 1st set use the weight shown, but try to get more reps than the computer shows so that you... **Beat the Computer!**

For Aux Lifts: Your test recorded lift is shown. Use the number of the shown, but try to increase the weight lift.

Day Number: 1 Did you BEAT THE COMPUTER on your last test? _____

Core Lifts: Set 1 Set 2 Set 3
Bench Squat: 3x 215 3x 205 3x 205
Towel Bench: 3x 140 3x 145 3x 175

Auxiliary Lifts: Set 1 Set 2
Globe Helm: 10x 0 10x 0
Neck Exercise: 10x 45 10x 45
Straight Leg Dead Lift: 10x 45 10x 45

Day Number: 2 Did you BEAT THE COMPUTER on your last test? _____

Core Lifts: Set 1 Set 2 Set 3
Parallel Squat: 3x 185 3x 190 3x 115
Bench Press: 3x 170 3x 175 3x 185

Auxiliary Lifts: Set 1 Set 2
Lunges: 10x 100 10x 100
Neck Press: 10x 10 10x 10
Neck Exercise: 10x 45 10x 45
Power Snatch: _____

Day Number: 3 Did you BEAT THE COMPUTER on your last test? _____

Core Lifts: Set 1 Set 2 Set 3
Parallel Squat: 3x 180 3x 200 3x 210
Bench Press: 3x 140 3x 145 3x 150

Auxiliary Lifts: Set 1 Set 2
Globe Helm: _____
Straight Leg Dead Lift: _____
Power Snatch: _____

Generate Individual Workouts

Computer-aided workouts for maximum results

Print Test Sheets

Forms for weights and field testing

October 17, 2005 1:58 AM

East Side High School
Individual Ironman, Power, and Overall Rankings
Bigger Faster Stronger

Athlete Information
Deans, Carter ID Number: 2 Height: 6 FT 1 IN
Grade/Period: 9 1 Height: 180 Lbs
Weekly Workout Schedule: FB-D Sport: FOOTBALL CB WR

Note: For all Lifts and Speed & Agility Events, higher Point Values are better.

Ironman Ranking

| Core Lift | 1 Rep | Point | Ironman Ranking | Grade | School |
|--------------------------|-----------|-------|-----------------|-------|--------|
| Squat | 225 lbs | 2 | Good | 4th | 4th |
| Bench | 145 lbs | 3 | Good | 3rd | 3rd |
| Dead Lift | 200 lbs | 1 | Beginning | 6th | 6th |
| Clean | 125 lbs | 1 | Beginning | 4th | 4th |
| Point Total: | 6 | | | | |
| Overall Ironman Ranking: | Beginning | | | | |

Power Ranking

| Event | Most Recent | Point | Power Ranking | Grade | School |
|------------------------|-------------|-------|---------------|-------|--------|
| 25 Yard Dash | 3.50 sec | 12 | Good | 3rd | 3rd |
| 40 yard Dash | 4.50 sec | 10 | Good | 3rd | 3rd |
| Dot Drill | 72 sec | 7 | Beginning | 7th | 7th |
| Vertical Jump | 18" | 5 | Good | 5th | 5th |
| Long Jump | 4' 7" | 0 | Beginning | 9th | 9th |
| 50 and Reach | 2' | | | 9th | 9th |
| Point Total: | 34 | | | | |
| Overall Power Ranking: | 5,440 | | | | |

Remember it is not where you start, it is where you finish.
Be totally committed to breaking your personal records each day, and you will learn the true path to success, happiness, and achieving your goals.

Recommendation # 1
Flexibility is key to improving speed. Stretch with intensity every day with the BFS 1.0, 2.0 Flexibility program.

Recommendation # 2
The key to additional gains is the Parallel Squat, Power Clean, and Power Snatch. You need to work on these as part of your total program.

Recommendation # 3
You need to do the BFS Dot Drill every day. Get Quick!

ADDITIONAL REPORTS: Ironman & Power Rankings

Compare to national standards

www.bfsonline.com

Top 10

October 17, 2005 1:58 AM

East Side High School
Top 10 scores among Current Athletes
in lbs

Parallel Squat

| Rank | Name | Date | Weight |
|------|-------------------|-----------|-------------|
| 1st | John Titus | 5/24/2004 | 9th 315 lbs |
| 2nd | Jason Merrill | 7/12/2004 | 9th 255 lbs |
| 3rd | Andy Selcho | 7/11/2004 | 9th 245 lbs |
| 4th | Carver Deans | 7/11/2004 | 9th 225 lbs |
| 5th | Amy Coulam | 7/12/2004 | 9th 205 lbs |
| 6th | Kelly Vinyl | 7/12/2004 | 9th 160 lbs |
| 7th | Jason Castleton | 7/12/2004 | 9th 155 lbs |
| 8th | Carolyn Bobertson | 7/12/2004 | 9th 145 lbs |
| 9th | Celina Tamayo | 7/12/2004 | 9th 135 lbs |
| 10th | Sara Clarke | 7/12/2004 | 9th 125 lbs |

BFS Beat the Computer

ADDITIONAL REPORTS: Produce Top 10 Lists

Challenge your athletes to improve

only **\$299** Work smarter, not longer!
#325091

BIGGER FASTER STRONGER



Want to get started now?
Download your FREE 30 Day Trial at
www.biggerfasterstronger.com!

Each program is customized with the school name and CANNOT BE RETURNED. Please get the demo version if you are unsure of your purchase. Demos are available via download from biggerfasterstronger.com or call BFS. System Requirements: Pentium 133 or better, 8 megs of RAM, Windows 95/98, ME or XP, 10 megs of disk space, CD-Rom drive.


TEACH CHAMPIONSHIP HABITS

SIX ABSOLUTES

1. ATHLETIC OR JUMP STANCE
2. BE TALL
3. SPREAD THE CHEST
4. TOES ALIGNED
5. KNEES ALIGNED
6. EYES ON TARGET

1-800-628-9737 | Fax (801) 975-1159 | biggerfasterstronger.com
843 West 2400 South, Salt Lake City, UT 84119 | info@bfsmail.com

ABSOLUTE ONE



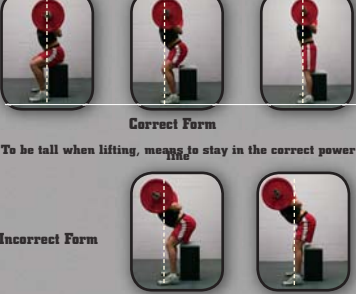
ATHLETIC OR JUMP STANCE

Athletic Stance
For the squat & box squat

Jump Stance
For the clean & hex bar

1-800-628-9737 | Fax (801) 975-1159 | biggerfasterstronger.com
843 West 2400 South, Salt Lake City, UT 84119 | info@bfsmail.com

ABSOLUTE TWO



BE TALL

Correct Form

To be tall when lifting, means to stay in the correct power line

Incorrect Form

1-800-628-9737 | Fax (801) 975-1159 | biggerfasterstronger.com
843 West 2400 South, Salt Lake City, UT 84119 | info@bfsmail.com

ABSOLUTE THREE



SPREAD THE CHEST


Correct Form

Spread the chest to keep the lower back correct.

Incorrect Form

1-800-628-9737 | Fax (801) 975-1159 | biggerfasterstronger.com
843 West 2400 South, Salt Lake City, UT 84119 | info@bfsmail.com

ABSOLUTE FOUR



TOES ALIGNED


Correct Form

Incorrect Form

Toes are straight when sprinting, jumping, lifting, and even stretch-

1-800-628-9737 | Fax (801) 975-1159 | biggerfasterstronger.com
843 West 2400 South, Salt Lake City, UT 84119 | info@bfsmail.com

ABSOLUTE FIVE



KNEES ALIGNED


Correct Form

Incorrect Form

Always keep knees directly over the toes.

1-800-628-9737 | Fax (801) 975-1159 | biggerfasterstronger.com
843 West 2400 South, Salt Lake City, UT 84119 | info@bfsmail.com

ABSOLUTE SIX



EYES ON TARGET

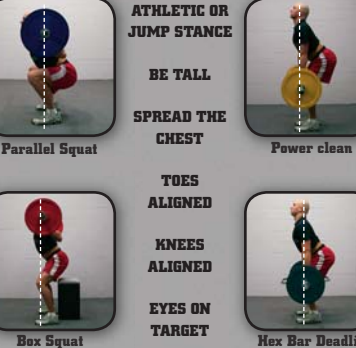
Correct Form

Incorrect Form

Keep your eyes on target straight ahead (generally) when lifting, sprinting, jumping and even stretching.

1-800-628-9737 | Fax (801) 975-1159 | biggerfasterstronger.com
843 West 2400 South, Salt Lake City, UT 84119 | info@bfsmail.com

POWER LINE



ATHLETIC OR JUMP STANCE

BE TALL

SPREAD THE CHEST

TOES ALIGNED

KNEES ALIGNED

EYES ON TARGET

Parallel Squat

Power clean

Box Squat

Hex Bar Deadlift

1-800-628-9737 | Fax (801) 975-1159 | biggerfasterstronger.com
843 West 2400 South, Salt Lake City, UT 84119 | info@bfsmail.com

BIGGER FASTER STRONGER

Six Absolute Posters \$75 #325036



Dedicated To Helping Athletes Succeed Since 1976

1-800-628-9737
Fax (801) 975-1159
biggerfasterstronger.com
843 West 2400 South
Salt Lake City, UT 84119
info@bfsmail.com

TEACH PERFECT SPORT AND LIFTING TECHNIQUE WITH THE ALL-NEW BFS SIX ABSOLUTES POSTERS!