

Baylie Divino (left) and Makayla Betz (right) are Level 10 gymnasts posing in front of a hard-core training tool that can help make serious athletes lean, a BFS Push/Pull Sled.



FOR WOMEN ONLY

Hard-Core Fat Loss

Alternative views on the fastest ways athletes can improve body composition

BY **KIM GOSS**

Last year Richard Simmons was invited to a congressional hearing to share his views about how we can solve the increasing problem of childhood obesity. Richard Simmons? A 61-year-old, hyperactive white guy with an Afro who apparently doesn't own a

pair of long pants? Is that the best we can do?

Seriously, although he was introduced at this hearing as a "national leading fitness expert," what exactly are Mr. Simmons' qualifications? He has a degree in art, and before getting

involved in the fitness industry he sold pralines and worked as a waiter...oh, and has never taken a PE class or played any sports. Nevertheless, Simmons was invited to Capitol Hill to give an emotional appeal as to why the American public needs to spend millions of dollars

so that he and his team of fitness instructors can visit public schools and show our physical educators how to teach kids to dance. You see, claims Simmons, "...everyone is not a jock, everyone cannot play sports, everyone cannot run..." [but] "...every child can dance." So dancing is the answer to childhood obesity? And the *only* answer?

Simmons' anti-sport-and-physical-education rant aside, there are many other fitness gurus who also hold narrow-minded views on how to lose weight through exercise. Case in point: Covert Bailey.

Covert Bailey has a master's degree in biochemistry, so he's a smart guy. And his *Fit or Fat* book series have sold approximately six million copies, so he's a successful author. But some of the statements he's made in these books are outright nonsense. In *The Fit or Fat Woman*, for example, Bailey said the following about competitive weightlifters who have low bodyfat: "...they watch their diets carefully and get into aerobic activities without thinking much about them. They play a little backyard basketball or soccer, both of which lower bodyfat like crazy, without listing the activity as part of their exercise program. After all, a little basketball is just for fun." You can't be serious!

Having been involved in competitive weightlifting for over 30 years, I would like to know the name of a single competitive weightlifter who fits the profile Bailey is talking about! Not 100, not 10, just one. Weightlifters lift weights, and usually that's about it! And by the way, basketball is not an aerobic sport, as 80 percent of the energy for basketball comes from the short-term energy system. In fact, it's estimated that the average VO₂ max (a measure of aerobic fitness) in the NBA is only about 47, compared to about 80 for a world-class rower.

For all the good work that fitness celebrities such as Richard Simmons and Covert Bailey have done to help individuals improve their physical fitness, they have also promoted many myths about the best ways to lose fat, especially for athletes. Let's explore some of these myths.

Facts and Fallacies of Aerobic Training

Fitness celebrities often point out that when you are lifting weights, the primary energy source is actually carbohydrates, not fat. That's true, but aerobic training does little to promote the development of muscle, which is absolutely necessary for sustained fat loss. Muscle is an active tissue that

muscle fibers to behave like the less powerful slow-twitch fibers. Notes Canadian strength coach and posturologist Paul Gagné, "If a sprinter started adding three 45-minute aerobic sessions a week to their training, they would quickly notice an increase in their sprint times." In fact, says Gagné, the effects of aerobic training are not localized. "If you train the upper body aerobically, not only will the upper body muscles get slower but so will your lower body muscles. If you were to row or swim for long distances, for example, your vertical jump would decrease."

Another reason is that aerobic training produces high levels of cortisol, a stress hormone that interferes with the body's ability to build muscle and



Matt A. Gouig illustration courtesy Charles Poliquin.

Richard Simmons's vision of solving the obesity crisis by introducing his dance workout into the school system is a bit bizarre.

burns calories at rest, so when you gain muscle with weight training, you also increase the number of calories your body burns not just during activity but also at rest.

Not only is aerobic training an ineffective way to build muscle, but overdoing this form of activity can decrease muscle mass, strength, power and speed by causing the fast-twitch

can cause the body to gain fat. In fact, one study on aerobic instructors found that those who had the highest bodyfat percentage (over 24 percent) were the ones who taught the most classes! This finding led accomplished strength coach Charles Poliquin to name this phenomenon "The Chunky Aerobics Instructor Syndrome." In addition to cortisol, there is also the issue of



Canadian Olympian Marilou Dozois-Prévost weighs only 105 pounds, but has clean and jerked 205 pounds. She dispels the myth that weightlifting makes women bulky and is not an effective sport to stay lean.

excessive free radical production with aerobic exercise.

“Aerobic exercise releases free radicals in the body, biochemicals that can increase the risk of illness,” says Gagné. “Antioxidants from our foods can neutralize these free radicals, but with aerobic exercise the body produces such high levels of free radicals that it is difficult for the body to neutralize them sufficiently without supplementation.”

Hard-Core Fat Loss for Athletes

Building muscle is one way that weight training can help burn fat, but there are other ways that weight training increases fat burning, such as by stimulating the production of noradrenaline.

Noradrenaline is a biochemical that activates brown fat cells, a type of fat that burns calories rather than storing

them. It’s noradrenaline that is responsible for accelerating your metabolism (the rate at which you burn calories) during and after a workout. Aerobics will also stimulate noradrenaline production, but the intensity of weight training produces considerably more of it. Consequently, you will burn more calories in the few hours after a weight training workout than you will after an aerobic workout. This phenomenon is one reason some individuals can go to sleep immediately after an aerobics class, while others may toss and turn for hours after lifting weights.

Weight training also increases the release of growth hormone, a peptide hormone manufactured in the hypothalamus that helps regulate bodyfat. Hala Rambie, a Romanian exercise scientist who moved to West Germany, found that the fastest way to lose bodyfat was to use high-intensity workout protocols, such as weight training, that

produce high levels of lactic acid in the blood. High lactic levels decrease the blood pH level, which in turn stimulates the release of natural growth hormone. One study that supported the superiority of this type of workout protocol was published in the July 1994 issue of *Metabolism*, “Impact of Exercise Intensity on Body Fatness and Skeletal Muscle Metabolism.” The authors noted that such training was particularly superior to reducing subcutaneous fat, which is the layer of fat just below the skin and which can be measured with skin calipers.

The optimal way to use weight training for weight loss would be to focus on exercises that use a lot of muscle mass, such as bench presses and squats, and to use relatively short rest intervals. Thirty seconds is optimal for most exercises to produce the highest levels of growth hormone. In a PE class setting, a student could alternate pairs of exercises that use different muscle groups, such as alternating biceps curls with triceps extensions. This method is called supersetting. A fat-burning workout that could be completed within 45 minutes, using relatively simple exercises, might look like this:

Superset #1:

Leg Press: 15-20 reps x 3 sets
Pec Dec: 10-12 reps x 3 sets

Superset #2:

Dumbbell Lunge: 8-10 reps x 3 sets
Lat Pulldown: 10-12 reps x 3 sets

Superset #3

Leg Extension: 15-20 reps x 3 sets
Dumbbell Military Press: 10-12 reps x 3 sets

Superset #4

Leg Curl: 6-8 reps x 3 sets
Dumbbell Row: 10-12 reps x 3 sets

Focusing on these types of body-building exercises, and performing relatively high reps, will help with fat loss but will do little to improve athletic performance. Athletes need to focus on compound exercises such as power cleans, squats and deadlifts that use a large amount of muscle mass. However, athletes need to rest longer between sets of these types of exercises and focus on fewer reps to use the most weight possible. Using more weight stimulates the fast-twitch fibers that are responsible for the highest levels of strength and power. Also, some women may not like the “pumped” feeling that occurs with the isolation-type exercises as the muscles gorge with blood.

One compromise is to perform the heavy core lifts in a regular fashion, but shorten the rest time between the less complex auxiliary exercises by



Photo: Reg Bradford

Fitness model Sarah Orbanic displays a powerful, lean figure that can only be built with high-intensity exercise such as weight training.

performing them in a circuit fashion. For example, after performing the BFS core lifts (power clean, squat, bench press and hex bar deadlift), an athlete could alternate sets of lat pulldowns with dips and alternate dumbbell lunges with military presses. Adding just 10-15 minutes of such training to an off-season workout could produce surprising results in fat loss, but there are other ways to incorporate fat-loss training without compromising strength and power.

Athletes using the BFS program, for example, could perform a medicine ball circuit on their Tuesday/Thursday program. Performing exercises such as squat jumps and chest throws using heavier balls, such as 16-25 pounds, can really get the heart rate going while activating the fast-twitch fibers. One idea is to alternate the harder jumping and throwing exercises with easier exercises, such as medicine ball sit-ups.

Another great fat-burner is the BFS Push/Pull Sled. Pushing or pulling a heavy sled for 20-30 yards is a great challenge. Performing a 1:2 work/rest ratio is optimal, which means you should rest twice as long as you worked. Here is a 10-minute sled workout using this protocol, with each exercise bout lasting about 15-20 seconds.

- Push, high bar: 20-30 yards, half speed
- Push, low bar, 15-20 yards, 3/4 speed
- Push, low bar, 15-20 yards, full speed
- Push, low bar, 15-20 yards, full speed
- Push, high bar, 20-25 yards, 3/4 speed
- Push, high bar, 20-25 yards, full speed
- Backwards walk, 15-20 yards
- Backwards walk, looking up, 15-20 yards,
- Backwards walk while rowing, 15-20 yards
- Backwards lunge, 15-20 yards

Of course, the same work/rest protocols can be used with cardio



Photo by Ted Cordingley, sportslinephotography.com

Although gymnastics is not an aerobic sport, gymnasts work their muscles at high intensity, which helps keep them very lean. Shown is teenage gymnast Emily Kirk of the Olympus School of Gymnastics in Sandy, Utah.

equipment. In a PE class an athlete could use the elliptical cycle or stair climber, working harder for 20 seconds and then working easier for 40 seconds, repeating the series for 10 minutes or more. Here is an example of such a workout on a stationary bike:

- Warm-up: Easy pedaling for 3 minutes
- Work sets: 20 seconds pedaling fast*, 40 seconds pedaling slowly: Repeat 10 times
- Cool-down: Easy pedaling for 3-5 minutes

**Instead of pedaling faster, the individual could increase the resistance on the bike*

Aerobic training can certainly help an individual lose weight, but this type of training is not compatible with high levels of performance in most sports. High-intensity workouts, whether they be with weights or the other forms of training discussed in this article, is the faster way to lose weight. Give it a try – at least, give it a try before you start dancing to the oldies! **BFS**