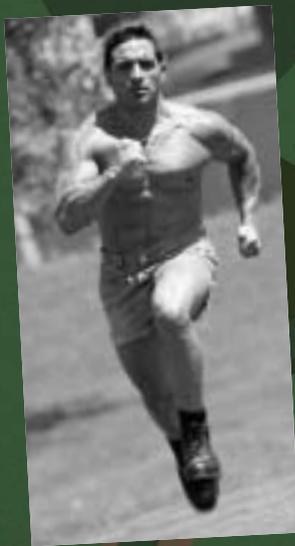




Guerrilla CARDIO

**Wage war on that ornery abdominal fat
with this militant 4-minute aerobics alternative!**

By Senior Science Editor David Kennedy



WARNING: If you are reading this article for sheer amusement and/or you are not the type of person who likes personal challenges, and you're entirely convinced that creating an ultra-lean, muscular physique is solely contingent on your genetics or "scoring" a supply of some "miracle" fat-loss supplement, now is the time to turn to the next article. To read any further will only confuse and frustrate you.

CAUTION: The following program is extremely vigorous and intended for healthy adults, age 18 and over. Please consult a medical or health professional before you begin this regimen.

"The ideal cardio program would be just long enough to 'spark' your metabolism for that important post-exercise fat "burn" but not so long that it begins to eat away at your hard-earned muscle!"

Guerrilla Cardio: Your most powerful weapon for fighting fat

Here's the problem: You can develop the best darn set of abs this side of the big river; but if they're all covered up by fat, what's to show off? Nothing but a big fat belly, that's what. Here's the solution: Wage war on that ornery abdominal fat with Guerrilla Cardio. It'll "free" your dear abbies from that prison cell of cellulite faster than any other cardio program ever developed.

"So just what is Guerrilla Cardio?" you ask. Well, it's an eight-week, militant aerobics alternative specifically designed for folks short on time and "fed up" with abdominal fat—or just plain body fat in general. The premise is simple: Rather than waste half your day lazily plodding along in the so-called "fat-burning zone" on the Lifecycle or treadmill, hoping the fat melts off before you die of boredom, you radically pick up the pace and alternate bouts of 20-second maximum-effort sprinting with 10-second periods of rest. You do eight of these gut-busting intervals. And all told, excluding the warm-up and cool-down, it'll take you only four short minutes a day, three days a week. Yep, you read right ... **FOUR lousy minutes a day, THREE days a week.** That's it!

"C'mon, four minutes!?" you say, incredulous as Arnold Schwarzenegger watching an infomercial for the Ab Slide. "Bull—!"

I know, I know ... in an age when we're bombarded by suspect quick-fix fat-loss strategies—if you can even call things like thigh creams, "fat-blockers" and prescription diet pills in and of themselves "strategies" for losing fat—what I'm proposing is indeed enough to sound most people's "BS" alarm. I mean, four minutes of cardio

a day for ridding yourself of all your superfluous flesh? It does have a ring of those "hypish" infomercials for all different kinds of ab-training devices—you know, the ones that work so well you only have to use them three minutes a day, and you'll miraculously develop rock-hard abs! Right.

The Guerrilla Cardio program, however, is different. It's not a gimmick. It's not based on blind guesswork or hype. It's a *real solution* based on scientific research as well as real-world experience. In fact, according to Japanese researchers, it may be one of the best possible training plans *ever developed*.^{4,5} Here's the deal ...

Building a better fat-burning program

Recently, Dr. Izumi Tabata, Ph.D., and colleagues from the National Institute of Health & Nutrition in Tokyo, Japan, set out in search of "the ideal" aerobics training protocol—one that would most efficiently increase fat burning and cardiovascular fitness. Such a plan, the researchers believed, should be:

⊕ **High intensity.** For years, we've been told that low-effort aerobics is the best method for burning fat. New research tells another story. While studies show high-intensity aerobics may burn a little less fat than its low-intensity counterpart *during* the time actually spent exercising, the total expenditure of calories (and fat!) is up to *50 percent greater* with intense cardio.³ You see, most of the fat you burn with high-intensity cardio occurs *after* exercising, not during the workout itself. Research presented in the journal *Medicine and Science in Sports and Exercise* shows that when you work out using high-intensity intervals, the total amount of calories your body burns is elevated up to *142 per-*

cent more than low-effort aerobics within the hour after your workout. And it doesn't stop there. Research published in the journal *Metabolism* shows this potent post-exercise "burn" may persist for up to 48 hours after exercising.¹

🌀 **Fitness-promoting.** The more fit you become, the more likely you are to use fat as fuel for any given activity. Peak fitness is generally defined as having both a high aerobic and anaerobic capacity. Your maximum oxygen capacity, or VO_2 peak, is generally considered the best

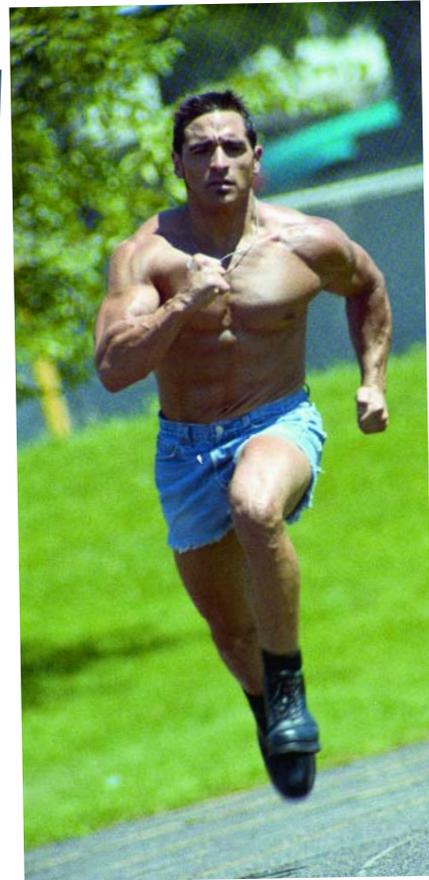
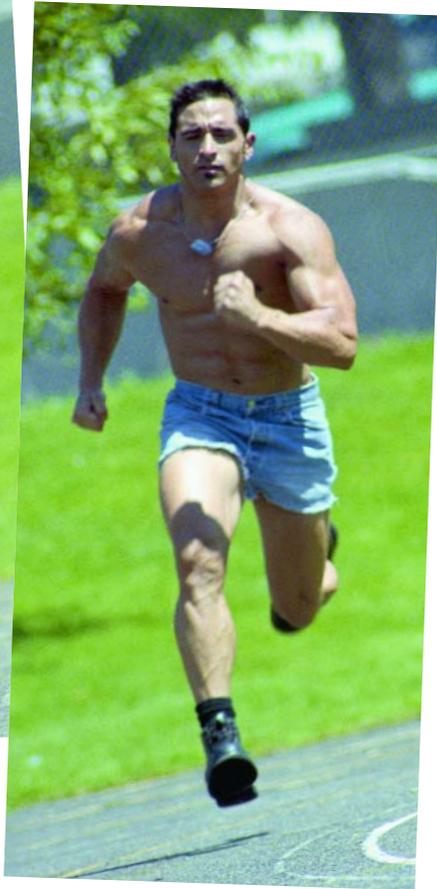
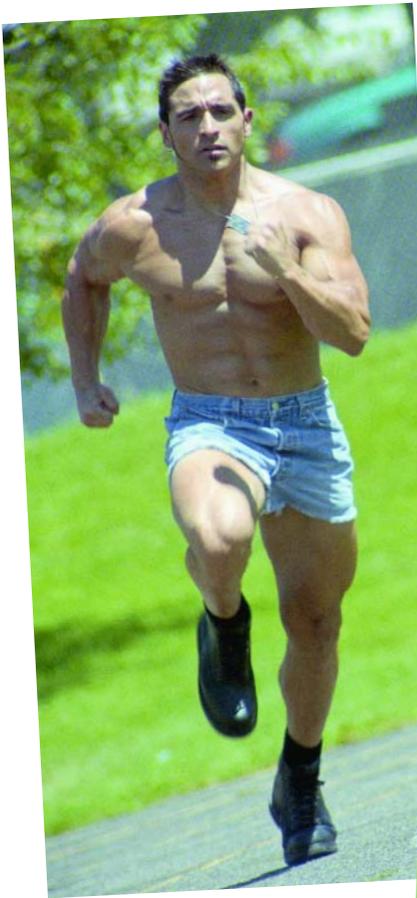
Guerrilla CARDIO

measure of aerobic fitness. As exercise intensity increases beyond your VO_2 peak, your body shifts to anaerobic (without oxygen) energy production. In the face of this oxygen debt, lactic acid levels build up in tissues, making your muscles feel sore. Your ability to continue exercising at this point is called anaerobic capacity. Notice that athletes in sports where a high level of both aerobic and anaerobic fitness are necessary (wrestling, basketball, boxing, speed skating, etc.) are some of the leanest, most muscular individuals around. Unfortunately, with most of the cardio programs offered up today, it's a case of "either/or." You *either* maximally stress your aerobic system (like most slow-go cardio programs) *or* maximally stress your anaerobic system (like most high-intensity cardio programs with long rest periods). So clearly, a cardio program that maximally improves **both** aerobic and anaerobic capacity would be a godsend.

🌀 **Brief.** Too much aerobics burns muscle! And muscle not only helps you look leaner and stronger, it also makes your body more *metabolically active*. The ideal cardio program would be just long enough to "spark" your metabolism for that important post-exercise fat "burn" but not so long that it begins to eat away at your hard-earned muscle!

In their search for the ideal cardio program, the Japanese researchers didn't have to look far. Interestingly, just up the road, their countrymen on the National Speed Skating Team had been practicing a form of cardio fitting all of the above attributes for several years.² And using it with astonishing success, given their individual performances at the most recent Winter Olympics in Nagano, where Japanese skaters won gold in the men's 500 meters, bronze in the men's 1,000 meters and bronze in the women's 500 meters. More astonishing yet, perhaps, might be these athletes' builds—





muscular, powerful with hardly an ounce of fat to show for ... we're talking body-fat percentages in the low- to mid-single digits. Freaky lean, almost.

By now, you can probably guess that this "secret" Japanese training protocol is similar to the one I introduced you to at the beginning of this article—eight intervals of 20-second maximum-effort sprinting intermixed with 10-second periods of rest. That's right, four minutes total, excluding the warm-up and cool-down. Intense ... fitness-promoting ... short ... and, as you'll come to discover, *not so sweet*.

Putting Guerrilla Cardio to the test

"... 8 very hard 20-second intervals with 10-second rest periods may be one of the best possible training protocols."²

—Izumi Tabata, Ph.D., National Institute of Health & Nutrition, Tokyo, Japan

To test the effectiveness of this brief but brutally intense regimen, Dr. Tabata and colleagues pit it against a moderate-intensity endurance program commonly prescribed by advocates of the so-called "fat-burning zone."⁴

In the moderate-intensity group, subjects riding exercise cycles were asked to pedal at 70 percent of VO_2 peak for an hour a day, five days a week. VO_2 peak and anaerobic capacity were measured before and after each training session for the duration of the six-week study.

A second group also exercised five days per week—only, these folks weren't afforded the luxury of pedaling along at such a leisurely pace. After a short warm-up, this group was made to carry out eight sets of 20-second maximum-intensity sprints on an exercise cycle (170 percent of VO_2 peak—were' talkin' *intense*, folks!)

with only 10-second rests between each bout. Again, VO_2 peak and anaerobic capacity were determined before, during and after the training.

The results, in some respects, weren't too surprising—in others, they were earth-shattering. As to be expected, the moderate-intensity endurance-training group experienced a rather significant increase in VO_2 peak (about 10 percent), but, also not surprisingly, this regimen had absolutely no effect on anaerobic capacity. On the other hand, the high-intensity interval-training group experienced a stunning 14 percent increase in VO_2 peak and a 28 percent increase anaerobic capacity.^{2,4,5}

This is believed to be the first study showing a single cardiovascular regimen improving *both* aerobic and anaerobic power so significantly. What's more, according to the researchers, the 14 percent increase in VO_2 peak in only six weeks on the high-intensity protocol is one of the highest ever recorded in exercise science.²

Bearing in mind these kind of scientific results coupled with the real-world examples of the Japanese speed skaters showing this protocol as the most efficient and effective path to total fitness (and consequently, fat loss), don't you think it's a good idea to "lose" the low-intensity, long-duration aerobic exercise and instead give high-intensity Guerrilla Cardio a go?

It's go time!

Before you get too bright-eyed and bushy-tailed at the prospect of doing "only" four minutes of cardio a day, I need to warn you—this ain't as easy as it seems. In fact, Dr. Tabata notes that even the Japanese speed skaters—who, remember, are *Olympic-caliber* athletes—had to "lay down on the floor after the training."² Make no mistake, Guerrilla Cardio is no joke, as you'll soon find out. But after eight weeks, I'm sure you'll agree that your new, chiseled, more muscularly defined physique will have been well worth the temporary moments of discomfort.

Outlined in Table 1 is your regimented Guerrilla Cardio eight-week system for slashing stubborn body fat. If you follow the program exactly how it's laid out, three Guerrilla Cardio sessions a week should produce nice results without delayed gratification. To prevent overtraining, try to incorporate the program on your weight training "off days." For instance, I train with weights on Monday, Wednesday and Friday, and perform my Guerrilla Cardio sessions on Tuesday, Thursday and Saturday mornings, before I eat anything. (Studies show cardiovascular exercise performed first thing in the morning, on an empty stomach, burns up to three times more fat than the same amount of exercise performed later in the afternoon!)



Table 1

Minutes 1-4:

Warm-up @ 50% of perceived maximum effort followed by:

Minute 5:

Sprinting for 20 seconds
Rest for 10 seconds
Sprinting for 20 seconds
Rest for 10 seconds

Minute 6:

Sprinting for 20 seconds
Rest for 10 seconds
Sprinting for 20 seconds
Rest for 10 seconds

Minute 7:

Sprinting for 20 seconds
Rest for 10 seconds
Sprinting for 20 seconds
Rest for 10 seconds

Minute 8:

Sprinting for 20 seconds
Rest for 10 seconds
Sprinting for 20 seconds
Rest for 10 seconds

Minutes 9-12:

Cool-down @ 50% of perceived maximum effort

"The 14 percent increase in VO_2 peak in only six weeks on the high-intensity protocol is one of the highest ever recorded in exercise science."

Now, while Guerrilla Cardio can be applied to all sorts of activities—the stationary bike, stairstepper, etc.—I would highly recommend you stick to sprinting for a couple of reasons ...

First, all else being equal, sprinting elicits a significantly higher peak oxygen consumption (VO_2 peak) than do other modes of cardiovascular exercise, according to researchers from the University of Missouri, Columbia, who recently compared treadmill sprinting to high-intensity exercise on a stationary skier, shuffle skier, stairstepper, stationary bike and rower. This is important because this new research shows the closer you come to your VO_2 peak while exercising, the more fat you'll burn once that exercise session is over.

Second, sprinting is tough. In fact, it's so tough, many people actually fear doing it, which is exactly why I recommend it. (Remember, if you move away from what you fear, you get weaker. But, when you move toward what you fear, you get stronger!)

Let's assume you're going to apply Guerrilla Cardio to running sprints, like I do. I work in maximum-effort "spurts" intermixed with brief periods of rest, which allow me to somewhat catch my breath before digging deep for another gut-busting burst.

For instance, I'll roll out of bed, put on my sweats and running shoes, grab my stopwatch and head to the track. After a four-minute warm-up jog around the oval, I'll take off for my first 20-second sprint, followed by a quick 10-second rest, followed by 20 seconds of more sprinting, 10 seconds of rest, and so on, until those unpleasant four minutes are up. Then I'll close it out with another four-minute jaunt around the track to cool down. And that's it. Only 12 minutes total—and just four minutes of relative discomfort.

Personally, I try to go all-out for my sprints, only because I've been doing this program for quite awhile. If you haven't sprinted since your PE days, I would highly recommend you *gradually*, over a period of weeks, work up to maximum-effort sprinting. If you take off like you're Maurice Greene going for the gold in the 100 meters, you'll never make it through the four minutes, and you'll probably not make it period, unless there's an EMT at the ready to resuscitate your sorry butt. Take it easy the first couple times. Sprint at 80 percent to 90 percent of your maximum effort for the first two or three weeks until your heart and lungs can handle it.

Again, if you are not a well-conditioned athlete, by all means, check with your doctor before starting a program like this.

Conclusion

When people ask me whether or not they should give Guerrilla Cardio a go, I simply ask them if they're happy with their current level of physical fitness.

"Sprinting is tough. In fact, it's so tough, many people actually fear doing it, which is exactly why I recommend it."

Can you see your abs? Are you winded walking up a flight of stairs? Are you fueled by endorphins and energy, or are you constantly run down, tired and uninspired?

It reminds me of an old saying ... "If you do what you've always done, you'll get what you've always gotten." I mean, think about it—if those long, boring, unfocused exercise routines—the type that so many millions of people conduct, week in and week out—were really the best way to burn fat and increase energy, why, then, do so darn many overweight women and men who take part in all those aerobics classes, month after month, look and feel *exactly the same* now as they did a year ago?

Conversely, off the top of your head, what words come to mind when I ask you to think of world-class sprinters? Speed ... Power ... Energy ... Muscularity ... *Lean*. Right? Truly, have you ever noticed that some of the leanest, most muscular physiques around belong to sprinters? Sprinters who, by the way, avoid long-duration endurance exercise like the plague! Compare endurance vs. short-distance speed athletes: Look at the physiques of elite 100-meter sprinters and then



at long-distance runners, such as marathoners. There's really no comparison, is there? Not only do sprinters have better-built physiques, their body-fat percentages rarely stray above single digits.

Bearing in mind the scientific research and the real-world examples showing the high-intensity, short-duration route as the most efficient and effective path to true and total fitness, not to mention fat loss, don't you think it's time to add Guerrilla Cardio to your training schedule? 

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