

2001 A pain odyssey: created in a Japanese sports lab, this high-intensity interval method will burn bodyfat while it builds muscle

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In the gym, your days of resting longer than you're actually lifting are history. Doing a set that lasts 20-30 seconds, then taking a 1-2-minute breather before another half-minute set? No more. Gone. Sayonara.

Your sets and rest periods are about to flip, and you'll be lifting for twice as long as you break. Here's what's in store: Short rest periods and high-rep sets performed at such an intensity that you'll use roughly half your normal weight. You'll burn bodyfat, your muscles will grow, you'll get an aerobic workout, and you'll increase strength and power. But it all comes at a price, and the only currency accepted is pain. It's a program as unique as its name: Tabata.

TIMING IS EVERYTHING

For the weightlifter, the measurables boil down to sets, reps and the amount of weight used. How many sets did I do? How many reps per set? And most important, how heavy did I go? But sometimes, when your results have hit a plateau, you need to think outside the box. Inside the box is this: Do a set of 8-10 reps, rest a minute, do another set of 8-10 reps, rest a minute. Repeat indefinitely. Not that anything is inherently wrong with this style of training, unless you've been doing it for years, not to mention decades.

Tabata Interval Training is so far out of the three-sets-of-10-reps box it doesn't even speak the same language. Using Tabata means alternating 20 seconds of exercise with 10 seconds of rest, nonstop, for eight sets. Unlike the high-intensity interval training we typically prescribe for cardio, but similar in its fat-burning effectiveness, this style of training can be adapted to any exercise: dumbbell presses, barbell rows, jumping rope, rowing, push-ups, you name it. And in true M & F fashion, we've designed a Tabata Interval Training program that's so effective, yet so grueling, that you'll thank us while you're hating us (or maybe a day or two later).

The results will be well worth the pain. The extremely short rest periods and seemingly constant reps in a Tabata program are perfect for melting away bodyfat. Yet despite the light weight you'll be using--50%-75% of what you'd use for a typical set of 8-12 reps, depending on the exercise--Tabata will take your muscle growth to new heights.

THE SCIENCE OF TABATA

Tabata Intervals were named after the Japanese scientist who first designed them: Izumi Tabata, PhD. As the story goes, Dr. T was looking for a method of gym training that would give the Japanese national speed-skating team an edge on the ice. He discovered that when his athletes performed eight cycles of 20-second high-intensity bouts followed by 10 seconds of rest, they increased both their aerobic (endurance) capacity and anaerobic (quick power) output--two things speed skaters need to be successful, but which typically don't go hand in hand. In other words, training one usually means the other is taking a back seat.

BARBELL CURL TABATA TIME

Workout 1 Chest, Abs

EXERCISE	SETS/TIME	REST (1)
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Chest

Push-Up	8/20 sec.	10 sec.
Incline Bench Press	8/20 sec.	10 sec.
Flat-Bench Dumbbell Press	8/20 sec.	10 sec.
Cable Crisscross	8/20 sec.	10 sec.

Abs

Reverse Crunch	8/20 sec.	10 sec.
Crunch	8/20 sec.	10 sec.

(1) Rest 2-3 minutes between exercises.

Workout 2 Legs, Calves

Quads/Glutes/Hamstrings

Squat	8/20 sec.	10 sec.
Leg Press	8/20 sec.	10 sec.
Leg Extension	8/20 sec.	10 sec.
Leg Curi	8/20 sec.	10 sec.

Calves

Standing Calf Raise	8/20 sec.	10 sec.
Seated Calf Raise	8/20 sec.	10 sec.

(1) Rest 2-3 minutes between exercises.

Not with Tabata. Whether you're a cyclist or a power-lifter, a boxer or a ballplayer, Tabata Interval Training offers the unique benefit of training both major metabolic pathways: those that provide endurance and those that create explosive energy.

What's in it for you? Since it enhances endurance, Tabata boosts your body's ability to burn more bodyfat. And since it bolsters explosiveness, the kind you use in a typical set of bench presses, squats or deadlifts, it can help you get more reps with a given weight and/or use more weight to perform a given number of reps. So what used to be a set of 10 reps with 200 pounds could soon be 10 reps with 225. This crosses over not only to

more strength but also more growth, since a greater overload on the muscles will eventually lead to an increase in their size.

Workout 3 Shoulders, Traps

EXERCISE	SETS/TIME	REST (1)
Shoulders		
Smith Machine Overhead Press	8/20 sec.	10 sec.
Smith Machine Upright Row		
Smith Machine	8/20 sec.	10 sec.
Upright Row		
Lateral Raise	8/20 sec.	10 sec.
Reverse Pec-Deck Flye	8/20 sec.	10 sec.
Traps		
Barbell Shrug	8/20 sec.	10 sec.
Dumbbell Shrug	8/20 sec.	10 sec.

(1) Rest 2-3 minutes between exercises.

Workout 4 Back, Abs

Back		
Bent-Over Row	8/20 sec.	10 sec.
Lat Pulldown	8/20 sec.	10 sec.
Seated Row	8/20 sec.	10 sec.
Straight-Arm Pulldown	8/20 sec.	10 sec.
Abs		
Alternating Oblique Crunch	8/20 sec.	10 sec.
Cable Crunch	8/20 sec.	10 sec.

(1) Rest 2-3 minutes between exercises.

HAMMER CURL

Workout 5 Triceps, Biceps. Forearms

EXERCISE	SETS/TIME	REST (1)
Triceps		
Lying Triceps Extension	8/20 sec.	10 sec.
Pressdown	8/20 sec.	10 sec.
Overhead Cable Extension	8/20 sec.	10 sec.
Biceps		
Barbell Curl	8/20 sec.	10 sec.
Incline Dumbbell Curl	8/20 sec.	10 sec.
Hammer Curl	8/20 sec.	10 sec.
Forearms		
Wrist Curl	8/20 sec.	10 sec.

Reverse Wrist Curl

8/20 sec. 10 sec.

(1) Rest 2-3 minutes between exercises.

The benefits don't end there. Because of a Tabata program's relatively high rep counts and extremely short rest periods, you'll increase the number of blood vessels feeding your muscle fibers. This will help deliver more nutrients, oxygen and anabolic hormones to the muscles, which means you'll have more energy during workouts, not to mention better recovery and growth when the session's over. And best of all, at least for those who loathe treadmills and elliptical machines, is the fact that Tabata counts as a cardio workout as well.

TABATA, ONLY TOUGHER

Dr. T probably never envisioned his intervals being performed at such a high volume. While most Tabata practitioners focus on one exercise per major muscle group, we've revised the concept to include several exercises per body-part. When you reach the end of each workout, you'll be wiped out like never before.

In the program that begins on page 181, you'll do 2--4 exercises Tabata-style per muscle group. Do each exercise for eight sets of 20 seconds, performing as many reps as possible (your numbers will vary, depending on individual rep speed and fatigue levels), with only 10 seconds of rest between each set. Once you complete eight sets of a given exercise, rest 2-3 minutes (if you have a training partner, you'll rest the four minutes it takes him to complete his eight sets), then repeat for the next exercise.

If you have a training partner, he can time your sets and rest periods, telling you when to start and stop. If you train solo, however, keeping time can get tricky. We suggest you use an interval timer (such as those made by Gymboss or Everlast) that allows you to set customized interval times so that the watch beeps or vibrates when your 20-second set is over and then goes off again 10 seconds later. (For more information on the Gymboss, check out *The Edge*.) Otherwise, find a wall clock or sneak a peek at your watch during sets to keep strict track of your intervals.

Weight selection is the key to an optimal Tabata training session. If the resistance is too light, overall training intensity will be insufficient and results inadequate. If the weight is too heavy, you won't be able to adhere to the 20-seconds-on, 10-seconds-off intervals for all eight sets. In this case, rest periods get bloated and you'll no longer reap the aerobic benefits of Tabata training.

It'll take some trial and error to select the proper weight for each exercise. When you find a weight that allows you to complete a full 20 seconds of reps for the first five or six sets but has you failing on the last two or three sets, you've found the perfect weight. Your goal, then, will be to complete the 20 seconds of reps for all eight sets (and stay true to the 10-second rest periods) before increasing the weight. While you may be able to work for each of the 20-second intervals, be prepared for your rep count to drop precipitously as you slog through the sets of each exercise.

Because the Tabata program, as it's laid out in M&F, is both painfully intense and high in volume--a brutal combination--we suggest you train each muscle group only once per week to provide ample recovery. Follow the Tabata Interval Training program for 4-6 weeks before returning to more traditional straight-sets training. Return to Tabata only every 2-3 months. Trust us, it's so demanding that you won't want to come back more often than that.

Photos by Michael Darter