

# Heart-Rate Training Can Make You Faster. Here's How



Most runners gauge their workout intensity by pace: The faster you run, the harder the workout.

Seldom do you hear someone ask what heart rate zone you're in, even if you're clearly wearing the latest heart monitor or activity-tracking tech. But with heart-rate data more accessible than ever (think: OrangeTheory classes, wrist-based devices, and treadmill training software), more runners are tuning into those numbers and wondering how they can enhance their performance.

That data can be a smart technique to guide your intensity during training and work your various energy systems depending on your goal, says Heather Milton, C.S.C.S., an exercise physiologist and clinical specialist at the NYU Langone Health Sports Performance Center.

"Heart-rate training really helps make your easy workouts easier, your hard

workouts harder, and ensures that you're actually working out at the correct intensity for your goal," says Becca Capell, an NASM-certified personal trainer and senior product manager at iFit.

## What Exactly Is Heart-Rate Training?

Heart-rate training uses—surprise—your heart rate, measured in beats per minute (bpm) or as a percentage of your maximum heart rate (MHR), as a guide for intensity. "Using that individual heart rate, you create specific training zones

that help determine your intensity for a given workout," explains Capell. So instead of training by pace, you use personalized zones and a heart-rate monitor to ensure your cardiorespiratory system is working at a specific effort for a set amount of time.

The idea behind heart rate-based training is to train your aerobic system without overstressing your skeletal and muscular systems. By working out in each heart-rate zone, you're making sure you're not just pushing yourself to the max, you're also holding yourself back from pushing too



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FROM  
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CREDEN-  
TIALS  
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CERTIFIED  
RUNNING  
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HARDEST RUN  
EVER I TRIED TO  
PR THE 2018 NYC  
MARATHON, HIT  
A WALL AT MILE  
16—THERE WAS  
MISERABLE.

BEST RUN EVER  
2019 LONDON MAR-  
ATHON—I'VE NEVER  
BEEN SO DIALED  
INTO A RUN AND  
WENT HOME WITH  
AN 11-MINUTE PR.

GO-TO SHOES  
ASICS GLIDE  
RIDE

FAVORITE PIECE  
OF GEAR  
POWERBEATS<sup>3</sup>  
WIRELESS  
EARPHONES

SOUL  
ROUTE  
THE  
NEXT  
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RUNNING  
PHILOSOPHY  
ONE FOOT IN  
FRONT OF  
THE OTHER.  
IT'S ALL IN  
YOUR HEAD.

hard, which can help you avoid overtraining. And since your maximum heart rate is unique to you, using it to create training zones means you're getting a much more personalized workout.

#### How to Find Your Zones

Your heart rate is one of the most accurate measurements of intensity and effort during a workout. Everyone has a resting heart rate, which is best measured when you first wake up, and a maximum heart rate, or the upper limit of what your cardiovascular system can handle during activity. Between these two values are different zones that mark your effort.

The most accurate methods to find your maximum heart rate are in a lab test conducted by professionals with fancy equipment, or in a field test supervised by a certified trainer in a gym setting on a treadmill or indoor bike. But to find your own zones, the first thing you'll need to do is calculate your MHR. The best equation currently available for the general population is  $[208 - (0.7 \times \text{age})]$ .

There are various models of heart-rate training zones (all with their own labels), but most nonelite runners follow five zones established by heart-rate monitor company Polar, based on research from the 1970s. Here's how the numbers stack up:

**ZONE 1:** Very light, 50 to 60 percent of MHR

**ZONE 2:** Light, 60 to 70 percent of MHR

**ZONE 3:** Moderate, 70 to 80 percent of MHR

**ZONE 4:** Hard, 80 to 90 percent of MHR

**ZONE 5:** Very hard, 90 to 100 percent of MHR

To calculate your personal zones, there's some easy math involved: Just multiply your max by the minimum and maximum percentages indicated by each zone.

#### How to Reap the Benefits

Don't even worry about heart-rate training before you've got a solid base of at least four to eight weeks of running, says Milton. "The chances of beginners being able to stick to a specific heart rate while



### HR TRAINING HELPERS

**1 / FITBIT VERSA 2**  
/ \$200  
With a 24/7 optical heart-rate sensor, this tracker also measures your fitness level (VO<sub>2</sub> max) to tell you how efficiently you run.

**2 / IFIT ACTIVEPULSE, IFIT SUBSCRIPTION**  
/ \$15-\$33/MONTH  
This training software syncs with treadmills and uses your real-time heart rate to automatically adjust the workout.

**3 / POLAR VANTAGE V**  
/ \$500  
Nine heart rate-tracking sensors measure blood flow with LED lights to increase accuracy and reduce unreliable readings.

**4 / FRONTIERX CHEST STRAP**  
/ \$499  
By listening to your heart and lungs, this strap measures real-time cardiac strain and breathing rate for a more accurate reading of effort.

starting out is low and may become discouraging," she says.

But once you're comfortably logging miles, each heart-rate zone serves a purpose in your training. "Using heart rate to determine tempo, threshold, and interval intensities can improve running economy and speed," says Milton. Many runners tend not to vary intensity and just rack up training miles at a middle-of-the-road intensity that doesn't help them—and may even hold them back—on race day. In a heart-rate training plan, you calculate the appropriate intensities, then you adjust your pace to ensure that your heart rate stays in that zone, says Capell. Here's how those zones break down:

**ZONE 1** should be easy; "it's a great intensity for recovery days," says Capell.

**ZONE 2** is for aerobic conditioning runs over 90 minutes and improves your body's ability to burn fat for energy, which makes it good for weight loss. When training for a half marathon or longer, aim to spend up to 80 percent of your training in this zone.

**ZONE 3** is the aerobic zone—the magic spot for developing stamina and increasing

aerobic capacity, says Capell. Thirty- to 45-minute tempo runs, which are still predominantly aerobic, fall into zone 3.

**ZONE 4** is a mix of aerobic and anaerobic metabolism to increase your lactate threshold. Threshold runs in this zone help your body better use carbs for energy and learn to withstand higher levels of lactate in your blood.

**ZONE 5** is your high-intensity intervals that last under five minutes, says Capell—you literally shouldn't be able to continue for longer. It helps you maintain or improve your max heart rate so you can push yourself harder on race day.

The key is that you should be training in all of these zones at different times in order to maximize your performance. Your intensity and zones all depend on your health, performance, race goals, and workout preferences. Make sure to work with a professional if necessary. But don't get number-obsessed. While heart-rate data can be a helpful guide, no tech is perfect. It's always important to listen to your body, no matter what your HR, time, or pace reads. 🏃