HEART RATE TIPS

HEART RATE TIPS WITH SALLY EDWARDS

BY THE NUMBERS - WHAT YOUR HEART RATE MONITOR IS TELLING YOU

By Sally Edwards

There are a lot of ways to gauge your fitness: number of reps, miles run, level of intensity. For those looking to tangibly track their progress, though, one of the most important tools to have is a heart rate monitor. Both because it helps people gauge their current state of fitness and it provides them with valuable data to ensure they are maximizing their workouts. Unfortunately, a lot of people who use heart-rate monitors don't really understand what they are being shown or what those different heart-rate numbers really imply. And they're not sure how to use those figures to improve their workouts. So if you've found yourself shying away from using a heart-rate monitor because you're not sure what it's all supposed to mean, don't fret. Here's how to overcome the two biggest obstacles — understanding the different heart rate numbers and how to interpret them to help measure your fitness.

STEP 1: Get to Know Your Heart Rate Numbers

There are different types of heart-rate measurements and each plays a significant role. Wear your heart-rate monitor throughout the day for several days to track and record your normal heart-rate data in various states, which include:

Resting Heart Rate

This is how fast your heart beats while in a complete state of rest, which is best monitored first thing in the morning, while lying horizontally.

Delta Heart Rate

This is the difference between your heart rate while resting and standing. So measure your delta heart rate while standing and subtract that number from your resting heart rate.

Heart Rate During Aerobic Activities

Track your heart rate during your favorite activities, such as walking, power walking, jogging, running and cycling. What heart rate does each activity elicit when you're going easy, moderate or hard? How do you feel when you're playing a recreational game of tennis versus a competitive game?

Max Fat Burning

Despite what you may have heard about the fat-burning potential of low-intensity exercise, your max-fat-burning zone actually occurs at the "upper" end of your aerobic zone — about 80 percent of your max heart rate. It's true that working at a lower level of intensity (50 to 65 percent of your max heart rate) is easier to maintain for an extended period of time (an hour or more) and it also allows you to burn a greater percentage of fat calories as compared to carbohydrate calories. Yet minute for minute, this lower level of exertion burns substantially fewer total calories, and thus fewer fat calories overall. It's at approximately 80 percent of max that you experience the largest total amount of fat being burned during the shortest duration of time. Generally, you'll be able to hold your max-fat-burning intensity for at least 30 minutes (longer as you become more fit).

Estimate your Max-Fat-Burning heart rate with this test:

- Choose an activity in which you can maintain a consistent intensity, such as running, cycling, skiing, rowing, etc. • Warm up for 10 to 15 minutes.
- Increase your intensity to the highest heart rate you can hold and maintain it for 10 minutes. You should be able to talk, but your sentences will be short and choppy.
- Active recovery for three minutes — keep moving but with light resistance or intensity.
- Return to the highest heart rate you can hold for 10 minutes and maintain it.
- Cool down for five to 10 minutes.
- Average your heart rate from the two vigorous 10-minute sessions to determine your estimated Max Fat Burning. (Note: This number should be equivalent to the one displayed on most aerobic equipment.)

Maximum Heart Rate

This is the maximum number of times your heart can beat in one minute during an all-out effort. As with your other numbers, maximum heart rate is unique

to your physiology. You can estimate it using one of several available formulas, but each has it's limitations. Here's one that we recommend for most people:

[210] minus [½ your age] minus [5 percent of your body weight] plus [4 (males)] or [0 (females)].

For example, a 35-year-old man who weighs 180 pounds would have a max heart rate of 187.5: 210-17.5-9+4=187.5.

Another way to determine your maximum heart rate is with a submaximal test. Here are two examples of such a test. (Note: Before completing these tests, anyone over the age of 40 should first check with a doctor or qualified trainer.)

Ladder Talk Test:

Select an activity for which you can gradually increase the intensity, such as running, cycling or rowing. Begin at a heart rate of 110 beats per minute and recite something out loud for 30 to 40 seconds. Continue to increase your heart rate until you can no longer comfortably speak. This is your "talk threshold." Add 40 to this number to determine your estimated maximum heart rate.

Walk Test:

After warming up, walk briskly for five minutes and note your peak (highest) heart rate. Then add the appro- priate fitness factor to that number to get your estimated maximum heart rate.

FITNESS LEVEL	Poor	Average	Excellent	Athlete
FITNESS FACTOR	+40	+50	+60	+90

Recovery Heart Rate

From 75 to 85 percent of your maximum heart rate, slow or stop moving and determine how many beats per minute your heart can drop during both a one-minute and a two-minute period.

STEP 2: Using Your Heart Rate Numbers

Once you know your normal heart-rate numbers, it's time to do something with them. Being able to interpret and respond to your numbers is critical to determining whether your training program is on target, requires more recovery time or needs to be intensified.

Resting Heart Rate

A drop in resting heart rate usually equates to an increase in fitness. If you see a rise of 10 percent or more in your resting heart rate it may indicate that you are fatigued, emotionally stressed or your immune system has been weakened.

Delta Heart Rate

As your fitness improves, your delta heart rate will also decrease. This provides you with the confidence that your training program has sufficient stress and recovery to allow your body to get stronger. If you notice a rise in your delta heart rate it could be because you are overtraining, stressed out, suffering from a lack of sleep, battling a virus or are reacting to new medication.

Heart Rate During Aerobic Activities

As you become more fit, your heart rate will decline at various workloads, and during vigorous activities you will be able to maintain a higher heart rate. If your heart rate becomes higher than normal for the same workload, then you need to find out why (e.g., dehydration, medication, lack of recovery, temperature, humidity, etc.).

Max Fat Burning

Most beginners find that their max fat burning is between 70 and 80 percent of their maximum heart rate. (In comparison, seasoned athletes usually have a threshold between 85 and 90 percent of maximum heart rate.) As your fitness increases, you will move your max fat burning closer to your maximum heart rate. Over time you will also be able to sustain the intensity for a longer period.

For example, someone just beginning an exercise program may be able to hold his or her max fat-burning rate for 15 minutes, whereas a seasoned athlete will be able to hold his or hers for approximately 60 minutes. To raise your max fat-burning rate you need to overload your cardiovascular system by working out once or twice a week around and above this intensity. It could be in the form of a tempo workout, time trial or long intervals, where you work out for five minutes then rest for two minutes and repeat the cycle several times.

Maximum Heart Rate

A higher maximum heart rate does not indicate greater fitness, nor does a lower maximum heart rate represent less fitness. Your maximum heart rate remains relatively stable during your life when you maintain a regular training regimen. It also
is sport specific. For example, maximum heart rate in swimming tends to be lower than cycling, cycling lower than running and running lower than cross-country skiing. Maximum heart rate is largely dependent on the amount of your muscle mass, your body position and supporting structure. If you are involved in multiple activities, take the time to determine your maximum heart rate for each. It is recom- mended that you assess it at least a couple times each year.

Recovery Heart Rate

Your heart will recover quicker as you become fitter. A recovery heart rate of 25 to 30 beats in one minute is a good score, and 50 to 60 beats in one minute is considered excellent. You should monitor your one-minute and two-minute recovery heart rate at least twice weekly to gauge whether your fitness level is improving. If it's not, then you may need to alter your workouts so they are more demanding.

Of course, there is much more to heart rate training than running numbers. But understanding your personal numbers is the first step toward taking your

fitness to the next level — and beyond.

Sally Edwards, MA, MBA, is considered one of the world's leading experts on heart rate. She is the author of 20 books on fitness and sports, a professional triathlete and founder of Heart Zones (www.heartzones.com).
