



# Counting the BEAT

If talk of your heart rate confuses you to the point of throwing in the towel, you're not alone. Exercise physiologist Kathleen Alleaume explains how to make your heart rate matter

**F**rom the moment it begins beating until the moment it stops, the human heart works tirelessly. In an average lifetime, it beats more than two and a half billion times, without ever pausing to rest.

Your heart rate is determined by the number of heartbeats per unit of time, typically beats per minute (BPM). Measuring your BPM is a simple and practical way of monitoring the amount of work your heart is doing at any given time. When you exercise, your heart beats faster to meet the demand for more blood and oxygen by the working muscles. The more intense the activity you undertake, the faster your heart will beat. So charting your heart rate

during exercise can be an excellent way to monitor exercise intensity.

For the majority of exercise enthusiasts, there is a range of exercise intensities that's described as safe and effective for promoting optimum cardiovascular benefits. To determine what range is best for you, you'll need to be familiar with a few terms.

### Resting heart rate

First things first; you need know your resting heart rate (RHR). The best time to measure your RHR is immediately after waking (without an alarm) as the body is at complete rest. The pulse is the most commonly used method of measuring the heart rate. Check yours by placing your index finger

### FAT-BURNING MYTH

To lose weight, we're often encouraged to train in the "fat-burning zone" (50 to 60 per cent MHR). It's argued that training at a lower intensity burns energy from fat stores rather than muscles. However, it's important to note the total number of kilojoules burnt is greater at higher intensities. Even more importantly, by training at a high intensity (70 to 85 per cent MHR), you'll still be burning more kilojoules up to two hours after exercise. In other words, your metabolism, which determines your ongoing ability to burn energy, is boosted for longer periods.

over an artery that passes close to the skin, such as your wrist, neck or temple. For an accurate measurement, take your pulse on three different mornings and work out the average. For example, count the number of beats for 15 seconds and then multiplying that number by four to get the BPM. Your RHR is an indication of your basic fitness level.

Most people have a RHR of between 38 and 78 BPM, with the average being 72 BPM. But some athletes, such as marathon runners, may have resting heart rates in the high 30s to low 40s.

### Maximum heart rate

Maximum heart rate (Max HR) is, quite simply, the highest possible heart rate you can achieve. Your Max HR is genetically determined, in other words, you're born with it. It's also a critical piece of information that serves as a marker for exercise intensity. There are a number of different ways to capture this number, including taking a Max HR test or doing a SubMax test, from which you can predict your Max HR pretty accurately. Another commonly used method is the 220-minus-age formula, though this only serves as an estimate. For example, if you're 30 years old, your Max HR is 190 BPM (220 minus 30 = 190).

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### Target heart rate

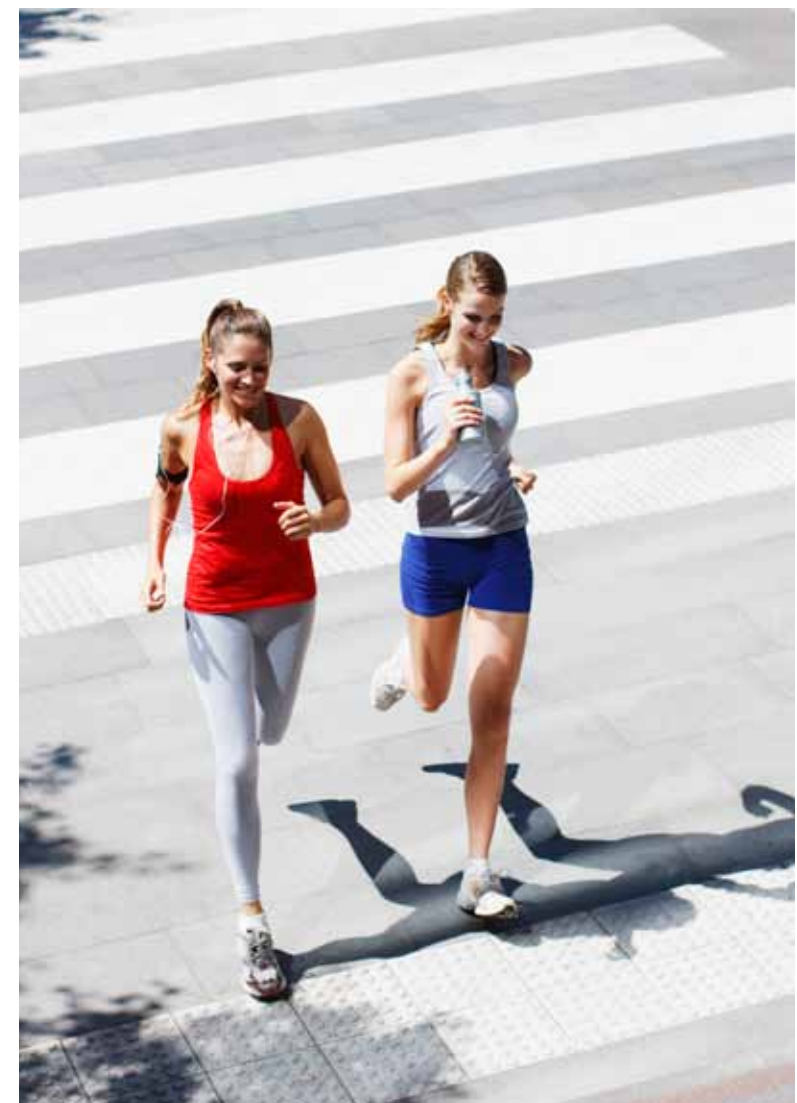
Now you've determined your resting and maximum heart rates, you need to know how to put that information to good use. The next step is to work out your target heart rate (THR), which is the desired rate that allows you to exercise safely while getting the maximum benefits from your workout. This theoretical range varies according to your physical condition, age and previous training.

For moderate-intensity activity, your THR should be around 50 to 70 per cent of your Max HR. So for a 30-year-old, the THR would be 95 to 133 BPM; while for a 50-year-old, it would be 85 to 119 BPM.

For vigorous-intensity activity, your target heart rate should be 70 to 85 per cent of your Max HR. This means vigorous-intensity physical activity for a 30-year-old requires the heart rate to remain between 133 and 162 BPM, while for a 50-year-old, it would be between 119 and 145 BPM.

Knowing your THR will allow you to measure your initial fitness level and also monitor your progress in an exercise program. If you're just starting out, begin training at a lower intensity for longer durations (minimum 45 to 60 minutes), then as you get in shape, gradually work up to higher intensities for shorter periods (minimum 30 minutes).

By monitoring your heart rate from week to week, you'll discover that you'll be able to exercise at a higher level of intensity, but at the same or lower heart rate. This is the way the heart tells you it's becoming stronger and more efficient. When you see positive results, it will motivate you to strive for even better results. As always, consult your doctor before starting an exercise program.



### THE TALK TEST

**If measuring your heart rate is all too fancy, the talk test proves that simple is smart.**

Basically, during exercise you should experience some heavy breathing, but you should still be able to speak without excessive effort. If you're unable to speak during exercise, your level of exertion may be so high that you cannot get enough oxygen to your working muscles, so ease up.

Though this method is low-tech, it's downright practical and a method that works for everyone in any situation.

It's certainly a solution for individuals who don't want to stop in the middle of exercise to check their heart rate but still want to know the intensity of their physical exertion.

• Turn to page 73 to find out how to win one of eight Polar FT7 heart rate monitors, worth \$179 each.