

Relationship Between Cardiovascular Fitness & Recovery Time

When you complete a cardio workout, your heart rate should make a significant drop and then gradually slow until it eventually returns to resting levels. How long it takes your heart to return to resting levels is referred to as recovery heart rate and is an indication of your cardiovascular fitness. The hearts of those in good shape don't take as long to return to resting levels as the hearts of those who are unfit.

Calculating Recovery Heart Rate

To determine your recovery heart rate, compare your heart rate during your workout to your heart rate one to two minutes after you're done with your session. Subtract your heart rate two minutes after your workout from what your heart rate was during your workout. For example, if you were exercising at an intensity of 155 beats per minute and your heart rate at two minutes after workout completion was 130, your recovery heart rate would be 25 beats per minute. Average recovery heart rate is 20 to 30 beats per minute.

Monitoring Cardiovascular Fitness

You can use your recovery heart rate to monitor your own improvements in physical fitness. If you're consistent with your workouts, your cardiovascular system becomes more efficient at transporting nutrients and oxygen through the bloodstream. Therefore, as you get in better shape, your body is able to return to resting levels more quickly and your recovery heart rate increases. Calculate your recovery heart rate periodically to keep track of improvements.

Training to Improve Recovery Time

To develop your cardiovascular fitness and improve your recovery time, perform your cardio workouts at the appropriate intensity. This appropriate intensity is referred to as your target heart rate and equates to 70 to 80 percent of your maximum heart rate. To estimate your maximum heart rate, subtract your age from 220. Then, to determine the low and high ends of your target heart rate range, multiply your maximum heart rate by both 0.70 and 0.80. Another method is to use the talk test. If you're able to talk in short sentences but not keep a continuous conversation while working out, you're likely exercising at the correct intensity to improve your cardiovascular endurance.

Additional Significance

Your recovery time may also predict mortality rate and the presence of coronary artery disease.

According to Michael J. Lipinski's 2004 study published by the "American Journal of Cardiology," those with a lower recovery heart rate are at an increased risk of premature dying than those who are able to recover from exercise more quickly. Dr. Michael S. Lauer notes in a 2002 issue of "Cardiology Rounds" that physically fit individuals will see an initial steep drop in heart rate after the completion of a workout, followed by a shallower drop during the second minute. Those with heart failure will never see the initial steep fall. Your recovery heart rate will likely be low if you're just getting back into exercise, but if you've been training consistently and yet your recovery heart rate is less than 20 beats per minute, visit your medical professional to check the health of your heart.