



Letter to the Editor

Our pulse – Best in-built fitness monitor



Sir,

We are living in an era of technology, dependent upon high-tech devices and applications that we use everyday in our home, institutions, offices and gymnasiums. But at the same time, we have forgotten the fact that human body is the best of the best model of technology. It is fascinating how human body uses its physiology for optimization of our workout, to measure the wellness of our body and to get rid of being wired to our workout applications.

What our pulse rate can reveal about us? Pulse rate is the best indicator of your fitness, the ideal time to grab your wrist for measuring the resting heart rate is after waking up in the morning while still in bed. An average person has a resting pulse between 70 and 75 beats per minute (bpm), people who do aerobic exercise regularly have their pulse rate lying between 50 and 60 bpm, then comes the professional athletes, who may have their resting pulse in upper 30s. On the other hand, pulse rate of 80–90 or more is a sign of lack of fitness.¹

It doesn't matter what story our current pulse rate is telling about us, as there's a famous quote, "Continuous improvement is better than delayed perfection – Mark Twain." Measuring the maximum heart rate can also assist in improving and optimizing our workout. Human heart can beat up to 220 bpm, and this is the utmost limit that starts declining with age due to unknown reasons. The formula for measuring the target maximum heart rate is 220–(your age). We should be aware of our body's ideal target heart rates during exercise for optimizing our workout without harming our body. There are few zones of heart rates like; fitness beginners, elder and those who want to burn fat calories should target 50–60% of their maximum heart rate, whereas a target of 60–70% is optimum for the fitness freaks that can do some intense aerobic workouts. Professional Athletes should reach 70–80% of their maximum heart rate, which is good for cardiovascular strengthening.²

Cardiovascular strengthening, according to a study is not only assessed by maximum heart rate but is better evaluated by the speed with which it falls after stopping the exercise.³ This is known as recovery heart rate which is termed as "Post-exercise heart rate" by some fitness specialists. Many popular fitness tests like YMCA submaximal Step Test or 3 min step test, use recovery heart rate as a caliber of aerobic (cardiovascular) fitness level.⁴

The increase in the pumping rate of heart is a combined effect of parasympathetic withdrawal and sympathetic activation⁵ and the decrease in heart rate is because of the reactivation of parasympathetic nervous system or vagal activity after the exercise.⁶ The fitter we are the quicker our heart rate will return to normal. At the same time there are many factors that affects the recovery of heart rate this list includes the intensity and duration of training, dehydration, cardiac drift and environmental factors, this is why it is important to track the recovery heart rate consistently.⁷

We use a lot of fitness and workout applications, but surely our body's built-in program is the best and most precise one.

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