



ELITE
PERSONAL TRAINING & FITNESS SOLUTIONS

HEALTH TOPIC OF THE WEEK

11/6 - Benefits of VO2 Max Testing

Introduction

As discussed in our September 5 health topic, VO2 max is a measure of overall fitness. Let's review what VO2 max means and why EPT is so excited to offer it to our clients.

VO2 max, or maximal oxygen consumption is an excellent indicator of cardiovascular fitness and aerobic endurance. Here's why:

The more oxygen a person can use during high level exercise, the more energy a person can produce. This test is the gold standard for determining cardio-respiratory fitness because the muscles need oxygen for prolonged aerobic exercise, and the heart must pump adequate amounts of blood through the circulation to meet the demands of aerobic exercise.

Cardiovascular Fitness and VO2max

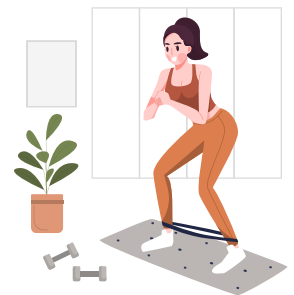
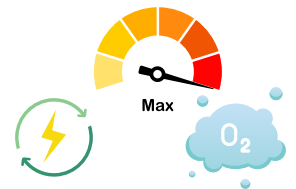
Cardiovascular fitness is an important aspect of overall fitness and health, but how do you know whether your cardiovascular fitness is good or not? One way is to test your VO2max!

VO2max Basics

VO2max is measured in the maximum (max) volume (V) in liters of oxygen (O2) consumed per minute of exercise, hence VO2max. For example, if you can consume 40 milliliters of oxygen/kg/min, then your VO2max score is 40. **Simply put, it is the maximum amount of oxygen that an individual uses during intense exercise.**



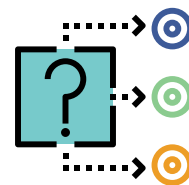
Your VO2max can improve. Let us help!



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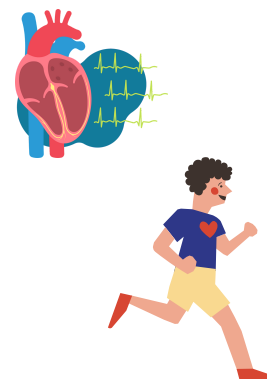
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VO2max is determined by a combination of factors, including genetics, age, gender, dietary habits, training habits, and overall body composition. Just like other aspects of health and fitness, VO2max and cardiorespiratory performance can be improved by simple improvements in diet and exercise habits. However, there are some good reasons to train specifically for VO2max improvement:



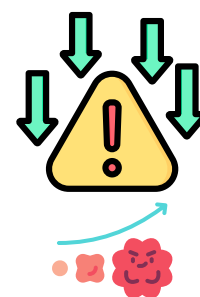
Improved VO2max = Cardiovascular Health Benefits

A study published in 2019 by the European Journal of Cardiology linked improvement in VO2 max to a lower risk of heart disease and premature death from cardiac causes. The study showed a 2.8% reduced risk of all-cause mortality and a 3.2% reduced risk of cardiac events with each milliliter/kg/min of improvement. For example, if you tested initially at a VO2max of 30 and improved to 40, you would see a 28.3% reduction in mortality and 32% reduction in cardiac event risk.



Improved VO2max = Reduced Cancer Risk

In a 2015 meta-analysis, six prospective studies with an overall number of 71,654 individuals and 2002 cases of total cancer mortality were examined. The median follow-up time in the studies was 16.4 years. Cardiorespiratory fitness showed a strong, graded, inverse association with total cancer mortality, suggesting that increased cardiorespiratory fitness represents a strong predictor of decreased total cancer mortality risk, regardless of overall adiposity (body fat.)

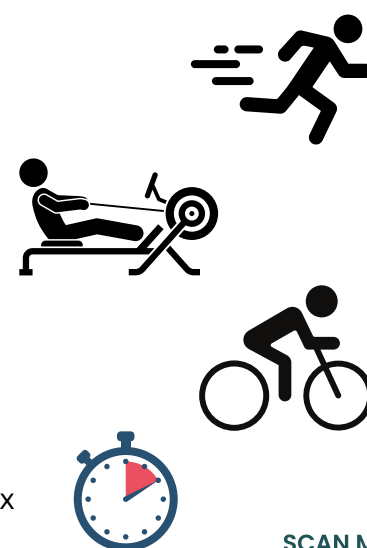


What is a “good” VO2max score?

Since VO2max is influenced by a variety of factors, not the least of which is age, there isn't a definitive “good” score for everyone. However, there are reference charts based on age and gender. Once EPT tests you, you can compare yourself to others in your demographic. The higher the score, the better.

How can I improve my VO2max?

Steady state cardio like running, rowing, or cycling can be a great way to get into better cardiovascular shape. This is typically what comes to mind when you think about cardio. But you don't have to put in lots of hours and tons of miles doing the same repetitive thing to improve your VO2max. In fact, high intensity interval training (HIIT) may be more efficient at improving your score than steady state training at 70% HRM or lactate threshold.



HIIT has at times gotten a bad rap due to improper implementation by some popular fitness outlets, but done in a sensible way, it can improve your VO2max both efficiently and safely.

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Cardiovascular improvement is not limited to doing “cardio exercises” or high intensity interval training. In addition to all its other benefits, resistive strength training is also an effective way of improving VO2 and overall cardiovascular fitness.

How will knowing my VO2max help my training at EPT?

Your test results tell you what your cardiorespiratory system is doing at varying levels of intensity, and the heart rates associated with your fitness level can be used to target the intensity of your training. For example, high intensity intervals can be easily worked into a regularly scheduled workout and can include a wide range of exercises that already work for you and aren't continuous, repetitive, boring, or injurious! Talk to your trainer for more details on the benefits of improving your VO2max.



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