

Seasoned runner ramp

Aug 13, 2026, 5:04:03 PM

Name Example

Age 35

Size 178 cm

Weight 89.1 kg



Protocol type

Seasoned runner ramp

Equipment used

GPS/Location (speed)

Comment

—

VO₂ Max

62.8
ml/kg/min

Very poor

Poor

Below average

Fair

Good

Very good

Excellent

62.8

HR recovery

Displayed as a reduction of HR Max

@ 1 min

172 bpm

-4 %

@ 2 min

137 bpm

-23 %

An important metric that indicates your overall fitness level by measuring how quickly your heart rate returns to normal after exercise.

Key metrics

Fat Max

VT1

VT2

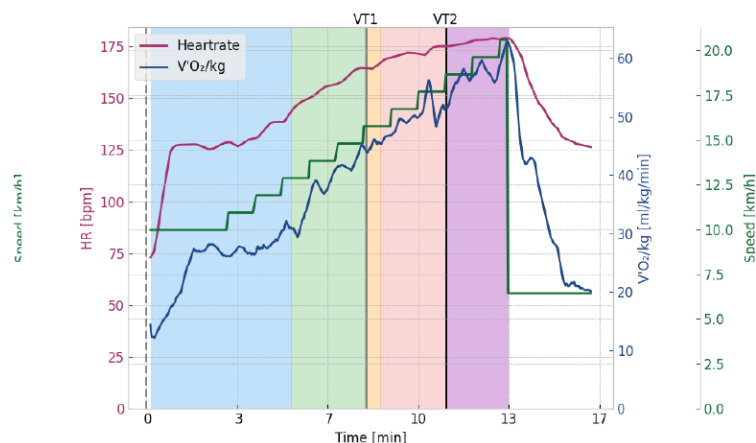
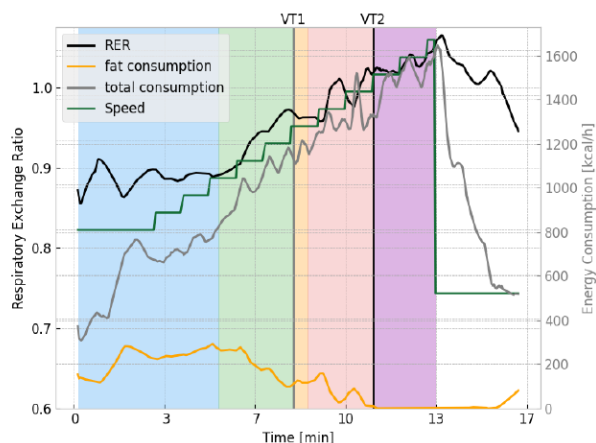
HR	139	164	175	bpm
Energy Use	806	1,173	1,383	kcal/h
Speed	12	15	18	km/h
Incline	0	0	0	%

Maximum metrics

HR	Energy Use	Speed	Incline	TV	RF	RER	VE
179 bpm	1,674 kcal/h	21 km/h	0 %	3.3 l	53 bpm	1.1	162.9 l/min



Zone 1	77 - 144 bpm	7 - 15 kcal/min 30 % fat / 70 % carbs	397 - 909 kcal/h	10 - 13 km/h	0 - 0 %
Zone 2	144 - 164 bpm	15 - 20 kcal/min 12 % fat / 88 % carbs	909 - 1177 kcal/h	13 - 15 km/h	0 - 0 %
Zone 3	164 - 167 bpm	20 - 21 kcal/min 12 % fat / 88 % carbs	1177 - 1234 kcal/h	15 - 16 km/h	0 - 0 %
Zone 4	167 - 175 bpm	21 - 23 kcal/min 0 % fat / 100 % carbs	1234 - 1383 kcal/h	16 - 18 km/h	0 - 0 %
Zone 5	> 175 bpm	23 - 28 kcal/min 4 % fat / 96 % carbs	1383 - 1674 kcal/h	> 18 km/h	0 - 0 %



Metabolic flexibility

Describes the body's ability to efficiently adapt metabolism to different energy demands and sources to ensure energy is used effectively.

Very limited

Limited

Average

Flexible

Very flexible

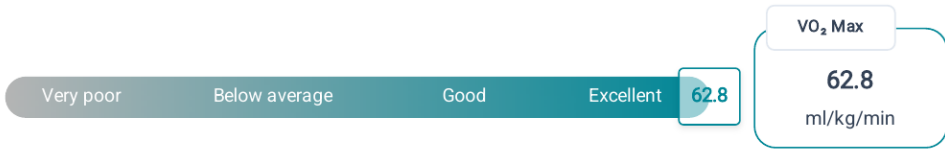


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Analysis of your report

Maximum oxygen uptake

The higher your VO₂max value, the more oxygen your body can take up and use efficiently for energy production.



How your VO₂ value compares to others

Your measured VO₂max value is evaluated against people of similar age, sex, and weight. A low VO₂max is associated with an increased risk of cardiovascular disease, while a higher VO₂max correlates with lower all-cause mortality.

Key determinants of VO₂max

Improving VO₂max and aerobic capacity requires focusing on cardiopulmonary fitness, tailored training routines, and genetic factors.

Cardiopulmonary fitness: The heart and lungs are responsible for supplying oxygen to the muscles. VO₂max is determined primarily by the maximal cardiac output (the amount of blood the heart pumps per minute) and the blood's oxygen transport capacity. Reduced oxygen delivery lowers VO₂max.

Training adaptations: Regular endurance training can increase VO₂max by around 15–20% within a few months.

Lactate threshold: In addition to VO₂max as a measure of aerobic performance, factors such as the lactate threshold (also known as VT2) also influence endurance performance.

Genetic factors: Are estimated to account for up to 50% of individual VO₂max variability. Genetic differences can influence both baseline values and training adaptations.

Understanding heart rate zones

Training with heart rate zones helps optimize training intensity and achieve specific fitness goals—such as building endurance or burning fat. This method divides your training into zones based on your maximum heart rate (MHR). Determining the zones via a VO₂max test is significantly more accurate than an estimate or using a fitness tracker.

Zone 1 (~75–86 % VT1): Very light activity—ideal for warm-up and recovery. In this zone you should be able to speak easily.

Zone 2 (~86–99 % VT1): Light activity—ideal for building aerobic base. This zone is suitable for longer training sessions.

Zone 3 (~100 % VT1 – 95 % VT2): Moderately intense activity—training starts to feel harder here. This zone effectively improves aerobic capacity.

Zone 4 (~95–99 % VT2): High intensity—suitable for intense interval or performance training. Improves speed and performance.

Zone 5 (> 100 % VT2): Maximal effort—for short, intense intervals. This zone is mostly used for peak training or tests.

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Benefits of training by heart rate zones

Targeted training: Working within specific zones lets you focus on different fitness goals — for example fat loss, endurance, or speed.

Improved performance: Monitoring your heart rate helps ensure you train at the optimal intensity to get the most benefit.

Injury prevention: Staying within your personal heart rate zones helps avoid overtraining and reduces injury risk.

Training your VO₂ value:

Combining these approaches can significantly improve your VO₂max, increase cardiovascular fitness, and promote overall well-being. An effective training program should also include strength training, thorough warm-ups, and mobility work.

High-intensity interval training (HIIT) Perform short, intense bouts followed by brief recovery periods. This method has proven highly effective for increasing VO₂max.

Interval training Alternate between intense training phases and recovery phases.

Regular training Combine continuous training and interval training to achieve the best possible progress.

Regular testing Have your VO₂max measured regularly to track your progress and adjust your training accordingly.

Lifestyle factors: Maintain a healthy body weight and good overall fitness—weight reduction can improve your VO₂max relative to body weight.

Practical training tips

Use a heart rate monitor: A heart rate monitor (HRM) helps you monitor your heart rate in real time and ensure that you are training in the desired zone.

Plan your training sessions: Structure your training so that each heart rate zone is addressed according to your goal—for example, long runs in Zone 2 and interval training in Zones 4 or 5.

Adjust your training: Listen to your body and adjust the intensity to how you feel. If you can barely maintain a zone for an extended time, you should reassess your training goals.

RER over time & your VO₂max

The respiratory exchange ratio (RER) is an important indicator of the body's energy metabolism and shows how efficiently different energy sources are used during physical activity. Measuring RER over a longer period helps to understand how metabolic processes and energy utilization change with different training intensities. Key aspects of RER in relation to VO₂max include:

- VO₂max: RER can indicate how efficiently the body uses oxygen during exercise—an important factor for VO₂max.
- Adaptation: RER highlights how the body adapts to different training intensities and how efficiently energy is produced.
- Training: Regular training can improve RER, which can increase VO₂max and overall fitness.
- Monitoring: RER can be used to monitor the body's response to training and adjust programs accordingly.

Understanding RER over time helps optimize training and increase performance in a targeted way.