



VO2 Max Test Analysis + Training Recommendations

<p>Key Snapshot 56 y/o male 6'0" 214 lb VO2 max: 37.0 ml/kg/min Peak heart rate: 160 bpm stage average; 161 bpm recovery-panel peak AeT / VT1: 101 bpm (VO2 13.5; ~70 W) AT / VT2: 132 bpm (VO2 24.9; ~150 W)</p>	<p>Coaching Takeaway This is a solid, trainable aerobic profile with plenty of room to improve sustainable output. The most actionable win is raising what you can hold around and just below threshold.</p>
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Key Results

Metric	Your Result
VO2 max	37.0 ml/kg/min (good for age; respectable aerobic capacity with room to build)
Peak heart rate in test	160 bpm stage average; 161 bpm instantaneous peak in recovery panel
Aerobic Threshold (AeT / VT1)	101 bpm (VO2 13.5 ml/kg/min; ~70 W)
Anaerobic Threshold (AT / VT2)	132 bpm (VO2 24.9 ml/kg/min; ~150 W)
Heart rate recovery	1 min: 151 bpm; 2 min: 136 bpm (11% and 28% drop from peak)
Likely limiter	Most likely peripheral / local muscular fatigue at the top end, with threshold data more actionable than the absolute ceiling

What these numbers mean

- You have a usable aerobic engine, but the biggest development opportunity is not chasing all-out top end - it is improving how much work he can do aerobically before the cost rises sharply.
- AeT at 101 bpm / about 70 watts is the upper edge of easy, conversational work. This is the anchor for recovery rides and early base work.
- AT at 132 bpm / about 150 watts is the most important performance marker in this test. Pushing this upward will improve sustainable power, tolerance for steady efforts, and day-to-day conditioning.

- The VO2 curve rises progressively and then falls off hard after the final stage while heart rate is still near peak, which often fits a muscular or local fatigue stop rather than a perfectly clean cardiopulmonary ceiling.

Your Training Zones

Zone	Heart Rate	Watts	Primary Use
Zone 1 - Recovery	< 95 bpm	< 60 W	Warm-up, cool-down, recovery work, circulation days
Zone 2 - Aerobic Base	95-111 bpm	60-99 W	Steady easy aerobic work; most foundational conditioning lives here
Zone 3 - Steady Tempo	112-123 bpm	100-129 W	Durable steady efforts below threshold; bridges base to harder work
Zone 4 - Threshold	124-139 bpm	130-169 W	Controlled hard intervals that raise sustainable output and tolerance
Zone 5 - High Intensity	140+ bpm*	170+ W	Short hard efforts; guide mostly with watts and RPE 8-9/10

Zone anchor notes

- AeT landed at about 70 W and 101 bpm, so truly easy conditioning should stay mostly below that line or just around it.
- AT landed at about 150 W and 132 bpm. The 130-150 W neighborhood is where you can do a lot of productive work without turning every session into a race.
- Above threshold, heart rate becomes less reliable in real time. Use output and effort first, then use HR as supporting feedback.

Training Priorities

1. Push AeT upward so easy work happens at a higher wattage without extra strain.
2. Raise threshold so 130-150 W work feels more controlled and repeatable.
3. Improve lower-body muscular endurance so local fatigue is less likely to be the first limiter.
4. Use small doses of high intensity to touch the top end without overcooking recovery.

Suggested Weekly Structure

- 2-3 sessions/week: Zone 2 base work (one short, one medium, one longer when schedule allows)

- 1 session/week: tempo or threshold development (Zone 3-4)
- 0-1 session/week: high-intensity work (Zone 5), depending on recovery and orthopedic tolerance
- 1-2 strength sessions/week: supportive lower-body strength and general work capacity

Workout Menu

A) Zone 2 Base Builder - 35-60 min in Zone 2 at 95-111 bpm and roughly 60-99 W. This is the bread-and-butter session for aerobic development and recovery support.

B) Aerobic Durability Finish - 45-75 min mostly in Zone 2, then finish with 8-12 min in low Zone 3 at about 100-115 W if feeling good.

C) Tempo Intervals - 3 x 8-12 min in Zone 3 at 112-123 bpm and roughly 100-129 W. Recover 3 min easy between reps.

D) Threshold Builder - 4 x 4-6 min in Zone 4 at 124-139 bpm and roughly 130-169 W. Controlled hard - not a sprint.

E) High-Intensity Touch - 5 x 1-2 min at 170+ W with 2-3 min easy between reps. Use watts and RPE first; do not wait for heart rate to catch up.

Fueling, Recovery, and Retest Notes

- For easy sessions under about 60 minutes, water and electrolytes may be enough. If energy is low, add 20-30 g carbohydrate per hour.
- For tempo, threshold, or longer sessions, start fueled and consider 30-60 g carbohydrate per hour during the work.
- If legs feel unusually heavy or heart rate recovery is worse than normal, keep that day aerobic and avoid forcing threshold work.
- A retest in 4-6 months using the same protocol would ideally show more watts at AeT and AT, a smoother rise in VO₂ near the top end, and better post-test recovery.

Appendix A - Test Raw Data

Stage	Time	HR (bpm)	Watts	VO2 (ml/kg/min)	VE/VO2
1	0:59	89	20	8.8	27.6
2	1:59	91	30	10.8	26.17
3	2:59	92	50	10.6	27.87
4	3:59	101	70	13.5	23.76
5	4:59	111	90	17.7	24.01
6	5:59	121	110	18.6	25.31
7	6:59	127	130	21.3	25.04
8	7:59	134	150	25.3	26.07
9	8:59	144	170	27.3	28.55
10	9:59	151	190	30.1	29.26
11	10:59	156	210	33.2	31.57
12	11:59	158	230	35.4	34.87
13	12:29	160	250	37.0	37.39

* Zone 5 heart rate is intentionally open-ended because HR lags during hard efforts. Use watts and perceived effort to guide short intervals.