

LONGEVITY & PERFORMANCE

VO2max and Longevity

One number predicts how long you live better than almost anything else you can measure. And unlike your genes, you can change it.

Swipe

THE OLD WORRY

You're watching the wrong numbers

Cholesterol, weight, family history: these get all the attention. But how well your heart, lungs, and muscles use oxygen outranks many of the risk factors people worry about far more.

THE DEFINITION

What VO2max actually measures

It's the maximum oxygen your body can use during hard exercise, your engine size. In a clinic, it's usually read off a treadmill as METs, a simple multiple of your resting energy use.

THE EVIDENCE, PART ONE

**33 studies. 102,980 people.
One pattern.**

A landmark 2009 meta-analysis found each 1-MET rise in fitness, roughly 1 km/h faster running, tied to about 13% lower risk of dying from any cause.

THE EVIDENCE, PART ONE

Low fitness carries a 70% higher death risk

In that same analysis, people under 7.9 METs, the low-fitness group, had about 70% higher all-cause mortality than the high-fit group.

THE EVIDENCE, PART TWO

122,007 patients. No ceiling on the benefit.

A 2018 cohort found the least-fit patients carried about 5 times the mortality risk of elite performers, and risk kept falling the fitter people got, with no upper limit observed.

WHY IT MATTERS MORE

Bigger than smoking, on par with diabetes

Being unfit moved the odds as much as, or more than, the risk factors people fear most, and it held up even past age 70 and with high blood pressure.

THE BOTTOM LINE



A risk factor you can actually change

These are observational studies, not proof of cause, and how you train safely depends on your own heart and joints. But fitness is one of the few major risk factors you can genuinely move, at almost any age, and that's worth an individual plan.