

Meta-analysis finds cardio-fitness cuts death and disease by nearly 20%

April 29 2024



Credit: Pixabay/CC0 Public Domain

Running, cycling, or swimming—if you regularly exercise, you're well on track for a long and healthy life, as new research from the University of South Australia finds that an increased cardio fitness level will reduce

your risk of death from any cause.

Published in the *British Journal of Sports Medicine*, the [study](#) found that for every 1-MET increase in cardiorespiratory fitness—the amount of energy used for quiet sitting—a person can reduce their risk of death by 11%–17%, and specifically, their risk of heart disease by 18%.

Comprising 26 systematic reviews with [meta-analysis](#) representing more than 20.9 million observations from 199 unique cohort studies, it is the first study to collate all the [scientific evidence](#) that looked at the prospective link between cardiorespiratory fitness and [health outcomes](#) among adults.

Senior author, UniSA's Professor Grant Tomkinson, says that cardiorespiratory fitness is probably the most important type of fitness for good health.

"Cardiorespiratory fitness (or CRF) is your ability to perform [physical activity](#) for a long period of time like running, cycling, and swimming," Prof Tomkinson says.

"In this study we found that high levels of cardiorespiratory fitness reduce the risk of dying early from any cause.

"We summarized the evidence linking CRF to numerous health outcomes and found that those with low levels of CRF are far more likely to die early or develop [chronic conditions](#) like heart disease later in life.

"Specifically, we found that every 1-MET increase in CRF, which is the amount of energy used when sitting quietly, reduced the risk of early death from any cause and heart failure by 11%–17% and 18%, respectively.

"For most people, a 1-MET increase in CRF can be achieved through a regular aerobic [exercise](#) program.

"The message is quite simple: if you do a lot of 'huff and puff' exercise, then your risk of dying early or developing diseases in the future is reduced. If you avoid exercise your health may suffer."

Chronic health conditions are an ongoing cause of poor health, disability, and premature death. In Australia, an estimated 11.6 million people (47%) have a chronic and debilitating health conditions, which contributes to two thirds of the burden of disease.

Lead author from the Public Health Agency of Canada and Adjunct Professor at UniSA, Dr. Justin Lang, says the study delivers a strong message for public health that cardiorespiratory fitness is an important marker of health status.

"Clearly, [cardiorespiratory fitness](#) is as an important factor for good health. If you are already exercising, this is good news; but if you know you need to up your fitness and movement, then this is a timely reminder," Dr. Lang says.

"People can make meaningful improvements through additional moderate physical activity, such as brisk walking, at least 150 minutes a week. And as they improve their fitness, their risk of death and disease will decline.

"But the onus for improvement should not just sit with the individual, it should also be routinely assessed in clinical and public health practice, so that we can support people to improve their health outcomes.

"Through regular assessment, clinicians and exercise professionals could better identify adults at greater risk of early death and initiate exercise

programs aimed at increasing CRF through regular physical activity."

This study was conducted in partnership with researchers from the Public Health Agency of Canada, the University of Granada, the University of Ottawa and University of Northern British Columbia.

More information: Justin J Lang et al, Cardiorespiratory fitness is a strong and consistent predictor of morbidity and mortality among adults: an overview of meta-analyses representing over 20.9 million observations from 199 unique cohort studies, *British Journal of Sports Medicine* (2024). [DOI: 10.1136/bjsports-2023-107849](https://doi.org/10.1136/bjsports-2023-107849)

Provided by University of South Australia

Citation: Meta-analysis finds cardio-fitness cuts death and disease by nearly 20% (2024, April 29) retrieved 12 September 2024 from <https://medicalxpress.com/news/2024-04-meta-analysis-cardio-death-disease.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.