



## Cardio Benefits of Exercise



A review of 160 randomised clinical trials with nearly 7500 participants finds that the benefits of exercise are strong but aren't the same for everyone. The review is published in the *Journal of the American Heart Association*.

The meta-analysis is the first of its kind to systematically and comprehensively evaluate the effectiveness of exercise interventions in affecting health outcomes. Since the exact mechanism of how exercise is linked to intermediate health outcomes is not very clear, the objective of this study was to evaluate the effects of exercise on intermediate biomarkers that could potentially mediate the cardioprotective effects of exercise.

During the study, the researchers found that men often benefitted more than women. In addition, people under the age of 50 benefitted more than people over 50 and people with type 2 diabetes, hypertension or hyperlipidaemia benefitted more than those who have none of these conditions. The findings also included a review of main clinical indicators of cardiorespiratory fitness (CRF) as it is a strong predictor of cardiovascular disease.

One of the key findings of the study is that while exercise appears to affect total cholesterol and lowers LDL in some people and increases HDL in most, the proportion of CVD risk that could have been reduced by exercise through effects on total cholesterol and LDL is much lower than what has been observed previously. The researchers note that significant benefits of exercise appear to be related to reducing insulin resistance and inflammation. The review thus confirms the wide-ranging benefits of exercise which both doctors and patients could consider manipulating.

Lead author Xiaochen Lin, a doctoral student in the Brown University School of Public Health said, "Besides exercise there are many modifiable lifestyle factors that could be the potential target of interventions for cardiometabolic health," he said. "If a subgroup of people cannot benefit from exercise, other alternatives should be considered. That's one of the most important implications of evaluating the heterogeneity of exercise interventions."

Source: Brown University

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