

Physical activity: More is better for heart failure prevention

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Doubling or quadrupling the minimum federally recommended levels of physical activity lowered the risk of developing heart failure by 20 percent and 35 percent, respectively, according to research published in the American Heart Association's journal *Circulation*.

"Walking 30 minutes a day as recommended in the U.S. physical activity guidelines, may not be good enough—significantly more physical activity may be necessary to reduce the risk of [heart failure](#)" said Jarett D. Berry, M.D., senior author of the study and an associate professor of internal medicine and clinical sciences at the University of Texas Southwestern Medical School in Dallas, Texas.

Heart failure occurs when the heart is not able to supply adequate amounts of blood to the rest of the body and is characterized by shortness of breath and a reduced ability to exercise.

The researchers found that the current U.S. physical activity guidelines recommendation of a minimum of at least 150 minutes of moderate intensity physical activity a week was associated with only a modest reduction in heart failure risk, and suggest that higher levels of physical activity, up to twice the minimum recommended dose, is needed to reduce the risk of heart failure, according to Berry.

They also found a "dose-dependent" inverse association between physical activity and heart failure, that is, higher levels of physical activity were associated with a lower risk of heart failure. This

relationship was consistent across all age, sex, race, and geographic location based subgroups studied.

Although the role of physical activity in [coronary heart disease](#) - the narrowing of the arteries that causes heart attacks - has been comprehensively studied, this study focused exclusively on the quantitative relationship between the amount, or specific "dose" of [regular physical activity](#) and the risk of heart failure.

The researchers pooled data from 12 studies from United States and Europe that collectively included 370,460 individuals with varying levels of physical activity at baseline and 20,203 heart failure events over a mean follow-up of 15 years. Physical activity was measured by self-reported levels of activity by study participants using standard questionnaires. This, they say, gave them the opportunity to assess the dose-response relationship between physical activity and heart failure risk in the general population.

Current U.S. and American Heart Association physical activity guidelines for adults recommend a minimum of at least 150 minutes (2 hours and 30 minutes) per week of moderate-intensity aerobic physical activity such as brisk walking, however, both the federal guidelines and the American Heart Association suggest that more physical activity is even better.

"Future [physical activity guidelines](#) should take these findings into consideration, and potentially provide stronger recommendations regarding the value of higher amounts of physical activity for the prevention of heart failure," said Ambarish Pandey, M.D., lead author of the study and a cardiology fellow at University of Texas Southwestern Medical School in Dallas, Texas.

"If you look at the general population," Berry said, "we've had

tremendous success in reducing coronary heart disease over the last 30 years. But heart failure rates have not declined enough. The findings from the present study suggest that [higher levels](#) of [physical activity](#) may help combat this growing burden of heart failure."

Provided by American Heart Association

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