

Recreational, commuter biking linked to lower cardiovascular disease risk

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Credit: Peter Griffin/Public Domain

People who bike regularly, either for pleasure or as a way to commute, appear to have a lower risk of cardiovascular disease, according to two separate studies published simultaneously in the American Heart Association's journal *Circulation* and *Journal of the American Heart Association*, the AHA/ASA's Open Access Journal.

While structured cycling as part of a formal workout routine is already known to guard against cardiovascular illness, little is known about the effects of habitual biking done for leisure or as a way to commute. Together, the findings from the newly published studies suggest that leisure and commuter biking may be an important public health strategy in large-scale efforts to reduce cardiovascular risk.

In the *Circulation* study, 45,000 Danish adults (aged 50 to 65) who regularly biked for recreation or to commute had between 11 percent and 18 percent fewer heart attacks during a 20-year follow-up (1993-2013).

The analysis showed that as little as half an hour of biking per week provided some protection against coronary artery disease. Additionally, people who took up biking during the first five years the authors followed them had about a 25 percent lower risk of developing heart disease, compared with those who remained non-bikers in the subsequent 15-year period.

Researchers caution that their findings do not prove definitively that riding a bike for leisure or to and from work can prevent heart attacks. However, they say, the lower number of cardiovascular events observed among those who biked on a regular basis is a strong indicator that such activity can boost cardiovascular health.

"Finding time for exercise can be challenging for many people, so clinicians working in the field of cardiovascular risk prevention should consider promoting cycling as a mode of transportation," said Anders Grøntved, M.Sc., M.P.H., Ph.D., senior study author and associate professor of physical activity epidemiology at the University of Southern Denmark.

Researchers also tracked participants' overall exercise habits, activity

levels and frequency of bicycle riding, along with [heart disease risk](#) factors, such as blood pressure, weight, cholesterol, smoking, diet and alcohol consumption. Participants were asked to provide information about cycling habits at the onset of the study and once more in five years.

In all, there were 2,892 heart attacks during the 20-year follow-up. Researchers estimate that more than 7 percent of all heart attacks could have been averted by taking up cycling and keeping it up on a regular basis.

"Because recreational and commuter biking is an easy way to make physical activity part of one's routine in a non-structured and informal fashion, based on the results, public health authorities, governments and employers ought to consider initiatives that promote bicycle riding as a way to support large-scale [cardiovascular disease](#) prevention efforts," said Kim Blond, M.Sc, lead author and research assistant at the University of Southern Denmark.

The *Journal of the American Heart Association* study revealed that middle-aged and older Swedish adults who biked to work were less likely than non-bikers to be obese, have high cholesterol, [high blood pressure](#) or pre-diabetes—all critical drivers of [cardiovascular risk](#).

Researchers followed more than 20,000 people in their 40s, 50s and 60s over 10 years and monitored their commuting habits, weight, cholesterol levels, blood glucose and blood pressure.

At the beginning of the study, active commuters (biked to work) were 15 percent less likely to be obese, 13 percent less likely have high blood pressure, 15 percent less likely to have high cholesterol and 12 percent less likely to have pre-diabetes or diabetes, compared with passive commuters (used public transportation or drove to work).

During a follow-up exam 10 years later, the portion of study participants who switched from passive commuting to active commuting also had an improved risk profile. They were less likely to be obese, have diabetes, hypertension or elevated cholesterol, compared with non-bikers.

Collectively, at the 10-year follow-up, those who maintained biking or took up biking at some point had a 39-percent lower risk of obesity, 11 percent lower risk of high blood pressure, 20 percent lower risk of high cholesterol and 18 percent lower diabetes risk.

"We found active commuting, which has the additional advantages of being time-efficient, cheaper and environmentally friendly is also great for your health," said Paul Franks, Ph.D., senior study author, professor in the Department of Clinical Sciences at Lund University in Sweden and guest professor at Umeå University in Sweden. "The multiple advantages of active commuting over structured exercise may help clinicians convey a message that many patients will embrace more readily than being told to join a gym, go for a jog or join a sports team."

Researchers noted that there was no minimum amount of time or distance required to reduce one's risk, even though people who biked longer or more often experienced small additional gains in risk reduction.

Because the study was observational, it is difficult to establish a cause-and-effect relationship between improved cardiovascular health and commuter biking, but the findings do indicate a strong cardio-protective effect from cycling.

Based on their findings, researchers also estimated that maintaining biking habits or switching from passive commuting to biking may have prevented 24 percent of obesity cases, 6 percent of hypertension diagnoses, 13 percent of [high cholesterol](#) diagnoses, and 11 percent of

the cases of diabetes.

"The really good news here is that it's never too late to benefit from an active lifestyle," Franks said. "People who switched from passive to active commuting saw considerable gains in their [cardiovascular health](#)."

Provided by American Heart Association

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