

Cycling is associated with reduced risk of both all-cause and cardiovascular mortality among people with diabetes

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New research presented at this year's Annual Meeting of the European Association for the Study of Diabetes (EASD) shows that cycling reduces the risk of all-cause and cardiovascular mortality among people with diabetes, and could be a useful addition to existing physical activity referral schemes for patients with the disease.

The research was conducted by Dr. Mathias Ried-Larsen and colleagues at the Centre for Physical Activity Research, Rigshospitalet, Copenhagen, Denmark. It analysed the association between time spent [cycling](#) and the risk of both all-cause, and [cardiovascular mortality](#). They also looked at whether changes to the time spent cycling also had an effect on the risk of all-cause and cardiovascular [mortality](#).

The risk of premature death from cardiovascular issues in people with [diabetes](#) is well established, however individuals with the disease also have higher all-cause mortality and there are few effective preventive measures to reduce this risk.

This prospective cohort study was conducted through a pair of questionnaire-based surveys conducted in eight Western European countries as part of the European Prospective Investigation into Cancer and Nutrition. The initial baseline survey took place between 1992 and 2000, with participants being sent a follow-up questionnaire 5 years after they completed the first one.

A total of 7,513 adults had self-reported or confirmed diabetes at the baseline of the study, of whom 5,506 went on to complete the second questionnaire and were selected by Dr. Ried-Larsen and his team for inclusion in their research. The primary and secondary outcomes they investigated were all-cause and cardiovascular mortality, respectively. Other factors included in their analysis were the average time an individual spent cycling at baseline measured in minutes per week, and the change in cycling status between baseline and the second survey.

During a total 111,840 person-years of follow-up there were 1,684 deaths from all causes registered among the study group. The authors found that compared to the reference group of people who reported no cycling at baseline, the all-cause mortality risks were; 25%, 24%, 31%, and 24% lower for those participants who cycled for 1-59 min/week, 60-149 min/week, 150-299 min/week and 300+ min/week, respectively.

The analysis of the effect of a change in cycling status was based on data from 58,493 person-years of follow-up, during which 990 deaths of study participants from all causes were registered. The team discovered that compared to people who reported no cycling at both examinations, there was no difference in all-cause mortality compared with those who cycled and then stopped; but mortality was 35% lower in initial non-cyclists who started cycling, and 44% lower for people who reported cycling in both questionnaires. Similar results were also observed for cardiovascular mortality.

The authors found that "Cycling was associated with lower all-cause and cardiovascular mortality risk among people with diabetes independent of practicing other types of physical activity."

They add: "Participants who took up cycling between the baseline and second survey had a significantly [lower risk](#) of both all-cause and cardiovascular mortality compared to consistent non-cyclists."

They conclude: "As starting cycling decreases risk of both all-cause and cardiovascular mortality among persons with diabetes, these findings suggest that cycling could be considered as an addition to existing physical activity referral schemes to increase physical activity in the clinical care of diabetes."

Provided by Diabetologia

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