

Cycling to work: major new study suggests health benefits are staggering

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Pump action. [Csaba Peterdi](#)

Research has consistently shown that people who are less physically active are both more likely to develop health problems like heart disease and type 2 diabetes, and to die younger. Yet there is [increasing evidence](#) that physical activity levels are on the decline.

The problem is that when there are many demands on our time, many people find prioritising exercise difficult. One answer is to multi-task by cycling or walking to work. We've just completed the largest ever study into how this affects your health.

[Published](#) in the British Medical Journal today, the results for cycling in particular have important implications. They suggest that councils and governments need to make it a top priority to encourage as many commuters to get on their bikes as possible.

The findings

Cycling or walking to work, sometimes referred to as active commuting, is not very common in the UK. [Only](#) 3% of commuters cycle to work and 11% walk, one of the lowest rates in Europe. At the [other end](#) of the scale, 43% of the Dutch and 30% of Danes cycle daily.

To get a better understanding of what the UK could be missing, we looked at 263,450 people with an average age of 53 who were either in paid employment or self-employed, and didn't always work at home. Participants were asked whether they usually travelled to work by car, public transport, walking, cycling or a combination.

We then grouped our commuters into five categories: non-active (car/public transport); walking only; cycling (including some who also walked); mixed-mode walking (walking plus non-active); and mixed-mode cycling (cycling plus non-active, including some who also walked).

We followed people for around five years, counting the incidences of heart disease, cancers and death. Importantly, we adjusted for other health influences including sex, age, deprivation, ethnicity, smoking, body mass index, other types of physical activity, time spent sitting down and diet. Any potential differences in risk associated with road accidents is also accounted for in our analysis, while we excluded participants who had heart disease or cancer already.



Death by bus? [Genemecom](#)

We found that cycling to work was associated with a 41% lower risk of dying overall compared to commuting by car or public transport. Cycle commuters had a 52% lower risk of dying from heart disease and a 40% lower risk of dying from cancer. They also had 46% lower risk of developing heart disease and a 45% lower risk of developing cancer at all.

Walking to work was not associated with a lower risk of dying from all causes. Walkers did, however, have a 27% lower risk of heart disease and a 36% lower risk of dying from it.

The mixed-mode cyclists enjoyed a 24% lower risk of death from all causes, a 32% lower risk of developing cancer and a 36% lower risk of dying from cancer. They did not have a significantly lower risk of heart disease, however, while mixed-mode walkers did not have a significantly lower risk of any of the health outcomes we analysed.

For both cyclists and walkers, there was a trend for a greater lowering of risk in those who commuted longer distances. In addition, those who cycled part of the way to work still saw benefits – this is important as many people live too far from work to cycle the entire distance.

As for walkers, the fact that their health benefits were more modest may be related to distance, since they commute fewer miles on average in the UK – six per week compared to 30 for cyclists. They may therefore need to walk longer distances to elicit meaningful benefits. Equally, however, it may be that the lower benefits from walking are related to the fact that it's a less intense activity.

What now?

Our work builds on the [evidence](#) from [previous studies](#) in a number of important ways. Our quarter of a million participants was larger than all previous studies combined, which enabled us to show the associations between cycling/walking to work and health outcomes more clearly than before.

In particular, the findings resolve previous uncertainties about the association with cancer, and also with heart attacks and related fatalities. We also had enough participants to separately evaluate cycling, walking and mixed-mode commuting for the first time, which helped us confirm that cycling to work is more beneficial than walking.

In addition, much of the previous research was undertaken in places like China and the Nordic countries where cycling to work is common and the supporting infrastructure is good. We now know that the same benefits apply in a country where active commuting is not part of the [established culture](#).

It is important to stress that while we did our best to eliminate other potential factors which might influence the findings, it is never possible to do this completely. This means we cannot conclusively say active commuting is the cause of the health outcomes that we measured. Nevertheless, the findings suggest policymakers can make a big difference to public health by encouraging cycling to work in particular. And we should not forget other benefits such as reducing congestion and motor emissions.

Some countries are well ahead of the UK in encouraging cyclists. In Copenhagen and Amsterdam, for instance, people cycle because it is the easiest way to get around town.



Dutch courage. [S-F](#)

It was not always this way – both cities pursued clear strategies to improve cycle infrastructure first. Ways to achieve this include increasing provision for cycle lanes, city bike hire schemes, subsidised bike purchase schemes, secure cycle parking and more facilities for bicycles on public transport.

For the UK and other countries that have lagged behind, the new findings suggest there is a clear opportunity. If decision makers are bold enough to rise to the challenge, the long-term benefits are potentially transformative.