Contraflow cycling on city streets does not increase crash rate: Study

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Allowing cycling in both directions on one-way streets does not pose a safety risk and should be made mandatory in all but exceptional cases, according to a new study by Leeds researchers.

In the first large-scale research of its kind, crashes were examined on more than 500 streets over 22 years in London, both before and after contraflow cycling was introduced, and it was found that it did not increase cyclist crash or casualty rates.

The introduction of cycling against the flow of traffic has often proved controversial because it was perceived to be unsafe, but the study says it is a safe, low-cost intervention which evidence says can improve the cycling experience and increase participation.

Caroline Tait, a PHD researcher with the Leeds Institute for Data Analytics, led the study which has been published in the journal *Accident Analysis & Prevention*. She said, "People are concerned about the safety aspects of this. They're worried that when they allow contraflow cycling, they're going to make it more risky for cyclists and drivers but these concerns aren't grounded in evidence.

"In fact, introducing contraflow cycling is a low-cost intervention for highways authorities which improves the cycling experience and cycling networks, particularly in urban environments."

The study focused on 508 one-way streets within inner London boroughs which introduced contraflow cycling between 1998 and 2019 and identified traffic collisions within a 10m radius of those segments.

There were 1,498 crashes involving cyclists during that time. Some 788 of them occurred before contraflows were introduced and 703 afterward. The figures were adjusted to take account of the increases in cycling over that time period and it was found that there was no change in the crash or casualty rate when contraflows were introduced.

Caroline believes that introducing contraflow cycling on one-way streets would improve cycle routes and networks as cyclists would not have to

navigate around the one-way streets, potentially on busier roads, and this would make routes more direct, comfortable, attractive and coherent for new and existing cyclists.

She added, "Is this study relevant for towns and cities outside of London? Yes, I believe it is. European experience shows that it encourages more cycling and improves the pedestrian experience by reducing cycling on pavements. It is a low-cost intervention compared to other forms of cycling infrastructure and could be rolled out at scale in towns and cities.

"Since the study has been published, I have been contacted by people across the country who have been discouraged or prevented from implementing contraflow cycling due to safety concerns. They feel this study is a game-changer. "

Dr. Robin Lovelace, Associate Professor in Transport Data Science at Leeds' Institute for Transport Studies, believes the perception that cycling contraflows are unsafe is often based on hearsay or anecdote.

He said, "The scale of this research adds to the growing evidence base around the interventions needed to enable active modes to become the natural choice for everyday trips.

"The government's objective is for at least 50% of short urban trips to be made by active modes by 2030. To reach and go beyond this, we need to act fast and implement a wide range of interventions, including road space reallocation schemes and contraflows. This work provides a strong foundation for bold plans.

"It also highlights the need for future research into the types of contraflow interventions, including width and level of separation of the contraflow cycleway, that are most effective and makes the case for

better monitoring data so we can better understand the levels of cycling uptake on specific streets with and without contraflows."

More information: Caroline Tait et al, Contraflows and cycling safety: Evidence from 22 years of data involving 508 one-way streets, *Accident Analysis & Prevention* (2022). DOI: 10.1016/j.aap.2022.106895

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