

Switching off street lights at night does not increase car crashes and crime, study finds

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Reduced street lighting in England and Wales is not associated with road traffic collisions or crime, according to research published in the *Journal of Epidemiology and Community Health*.

The study, led by researchers from the London School of Hygiene & Tropical Medicine in partnership with UCL, suggests that [local authorities](#) can safely reduce street lighting at night, saving energy costs and reducing carbon emissions.

Lead investigator Dr Phil Edwards of the London School of Hygiene & Tropical Medicine, said: "An estimated £300m is spent every year on [street lights](#) in the UK. At a time when local authorities need to make spending cuts, our findings show that by carefully assessing risks, street lighting can be reduced without an increase in car crashes and crime."

Researchers analysed 14 years of data from 62 local authorities across England and Wales who had implemented a range of reduced street light strategies, including switching lights off permanently, reducing the number of hours that lamps are switched on at night, dimming lights, and replacing traditional orange lamps with energy efficient white light LED lamps.

To assess road safety, the researchers looked at all roads in participating authorities, examining what type of street lighting was used and the number of traffic collisions that happened at night relative to the day during 2000-13. There was no evidence of an association between

reduced street lighting and night-time collisions across England and Wales.

To assess crime, researchers looked at data from 2010-13 [1] to analyse how many crimes took place in an area and what types of street lighting were used there. They focused on offences more likely to occur at night, including burglary, theft of or from a vehicle, robbery, violence and sexual assault. Overall, there was no evidence of an association between reduced street lighting and increased crime across England and Wales. [2]

Study co-author Professor Shane Johnson of UCL Security and Crime Science, said: "The study findings suggest that energy saving street lighting adaptations have not increased area level [crime](#) in the neighbourhoods studied. This is very encouraging but it is important to note that it does not mean that this will be the case under all conditions, and so changes to lighting should be managed carefully."

The researchers caution that street light reductions need to be carefully planned by local authorities. In an accompanying study published in Health & Place, researchers from the London School of Hygiene & Tropical Medicine conducted interviews and surveys with 520 people and analysed data from eight local authorities in England and Wales with different street light strategies to assess public views. Although reduced lighting had gone largely unnoticed in many areas, and had little reported impact on safety or mobility, there were some strong concerns where lights had been switched off. Street light at night was found to be important to many urban and suburban residents, and some felt less safe in the dark. Switching off lights was also perceived as representing neglect of an area by the local authority who were removing a 'public good'. [3]

The researchers note their findings may be limited as they were only able

to obtain useable data from 62 of 174 local authorities. The research was funded by the National Institute for Health Research (NIHR) Public Health Research programme.

More information: Rebecca Steinbach, Chloe Perkins, Lisa Thompson, Shane Johnson, Ben Armstrong, Judith Green, Chris Grundy, Paul Wilkinson, Phil Edwards. The effect of reduced street lighting on road casualties and crime in England and Wales: controlled interrupted time series analysis. *Journal of Epidemiology and Community Health*. [DOI: 10.1136/jech-2015-206012](https://doi.org/10.1136/jech-2015-206012)

[1] 2010 is the earliest date for which Police.uk data was available from. Data was provided and analysed by area rather than by road to protect anonymity of victims.

[2] Estimates varied greatly between police forces in different areas, but the national figures found no association between street light reduction and crime overall. When specific offences were considered, there was some evidence that part-night lighting (reducing the number of hours that lamps are switched on at night) may be associated with an increase in robbery, and that dimming street lights may be associated with a decrease in violence.

[3] Judith Green, Chloe Perkins, Rebecca Steinbach, Phil Edwards. Reduced street lighting at night and health: A rapid appraisal of public views in England and Wales. *Health & Place*. [DOI: 10.1016/j.healthplace.2015.05.011](https://doi.org/10.1016/j.healthplace.2015.05.011) Paper available online at: www.sciencedirect.com/science/.../ii/S1353829215000775

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