

Obesity 'accelerates' COVID-19 mortality risk amongst ethnic minorities

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A stronger association exists between deaths from COVID-19 and obesity in people of Black, South Asian and other ethnic minority groups than in White people, latest research published in the journal *Nature Communications* demonstrates.

This finding means there was little difference in risk between ethnic groups in lean individuals at low Body Mass Index (BMI). However as BMI levels increased into obesity, Black, South Asian and other [ethnic groups](#) were substantially more at risk of dying from COVID-19 than White people.

Therefore those from ethnic minorities who have a higher BMI were most at risk of dying from COVID-19, the research found.

The study was conducted by researchers at the University of Leicester and the Office for National Statistics (ONS). The team examined the national Census information, [electronic health records](#) and mortality data (number of deaths) of more than 12 million English adults over 40 years of age who were alive at the start of the pandemic and who had a value of BMI recorded by a GP in the previous 10 years.

Professor Tom Yates, Professor of Physical Activity, Sedentary Behaviour and Health at the University of Leicester, and lead author of the study, said: The increased risks of COVID-19 infection, severe disease and death associated with obesity and ethnicity has been well researched in their own right, but this is the first study to present findings on how the risk of COVID-19 mortality in ethnic minority groups is dependent on BMI, with obesity seeming to magnify the higher risk reported in ethnic minority groups."

The research was jointly funded by UK Research and Innovation and Health Data Research UK and was supported by the National Institute for Health Research (NIHR) Applied Research Collaboration (ARC) East Midlands and the NIHR Leicester Biomedical Research Centre. It is part of the Data and Connectivity National Core Study, led by Health Data Research UK in partnership with the Office for National Statistics.

These findings highlight the urgent need for more research to get a better

understanding as to why ethnicity and obesity are associated with higher COVID-19 mortality.

Professor Kamlesh Khunti, Director of NIHR ARC East Midlands and the Centre for Ethnic Health Research, said: "We are learning more and more about this deadly virus and this study represents another important finding. It highlights the urgent need for more research into the causal relationship between ethnicity and obesity.

"The research gives insights that will allow healthcare professionals and policy makers to put measures in place and create tailored plans to protect people from [ethnic minority](#) groups who are overweight or obese and thus try to reduce mortality."

The study authors note that only 52.4 percent of English adults had their BMI recorded by their GP in the 10 years before the pandemic, therefore the analyses only applies to this cohort within the population. However, the sample size of 12.5 million people over 40 years of age is the largest of its kind looking at obesity and ethnicity as combined risk factors for COVID-19 mortality.

The study, "A population-based cohort study of [obesity](#), ethnicity and COVID-19 mortality in 12.6 million English adults" is published in *Nature Communications*. To access the full research study, [click here](#).

More information: Yates, T., Summerfield, A., Razieh, C. et al. A population-based cohort study of obesity, ethnicity and COVID-19 mortality in 12.6 million adults in England. *Nat Commun* 13, 624 (2022). doi.org/10.1038/s41467-022-28248-1 , www.nature.com/articles/s41467-022-28248-1

Provided by University of Leicester

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