



Press Release

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Obesity hampers Covid-19 recovery prospects, study finds

Being obese reduces the chance of survival in severe cases of Covid-19, a study has found.

Reduced lung function and inflamed tissue under the skin and around internal organs could be linked to the increased risk, researchers say.

Both factors can trigger a life-threatening over-reaction of the body's immune response that causes harm to patients, the study suggests.

The researchers also found that being male was linked with more serious Covid-10 hospital admissions.

The findings – by the Universities of Edinburgh and Liverpool, and Imperial College London – are based on an analysis of data obtained from some 17,000 Covid-19 patients in the UK.

Dr Annemarie Docherty, University of Edinburgh who co-led the data analysis, said: "Hard data cannot convey the human story of individuals and their loved ones who have suffered, changed or sadly passed due to COVID-19. Yet with every contribution to this important study, patients and their carers, with the assistance of dedicated researchers, have struck a blow in the fight to curb this pandemic."

Researchers reached their conclusion having made adjustments for conditions such as lung, heart and kidney disease – which are already known to cause poor outcomes in patients.

Analysis is based on information obtained by 2,500 research nurses and medical students in 166 hospitals and is the largest study of its kind outside of China, where coronavirus first emerged. The trend has not been identified in China where it is thought that fewer people are obese.

The research team says the study provides insights that will underpin a huge range of research. The results of the study have already been shared with UK Government and World Health Organisation, and are being compared with data from other countries around the world.

It has already known that Covid-19 can be more severe in older people and people with chronic heart, lung, and kidney disease, a weakened immune systems, diabetes, and some cancers. Less is known about how the virus affects people on the basis of other underlying health conditions, including obesity.

The study, funded by UKRI – Medical Research Council, has been made available early through a preprint server and can be accessed here:

<https://www.medrxiv.org/content/10.1101/2020.04.23.20076042v1>. The findings will be published in a peer-reviewed journal soon.

Dr Kenneth Baillie, University of Edinburgh and leads the ISARIC4C consortium that conducted the study, said: "Gathering this information took tremendous dedication and effort from thousands of research staff across the UK. Together they have created an open resource that will be used by scientists across the world to better understand this new disease."



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Professor Calum Semple, University of Liverpool, said: "One in three people admitted to a UK hospital with Covid-19 has taken part and their contribution has been critical. We must do everything possible to understand this disease, so we are better prepared for the next wave of this pandemic."

Professor Peter Openshaw, Imperial College London, said: "This study has collected so much data at such great speed. We really appreciate that people risked their lives to collect material for this study. It highlights crucial questions that researchers, healthcare professionals and patients need answers to."

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