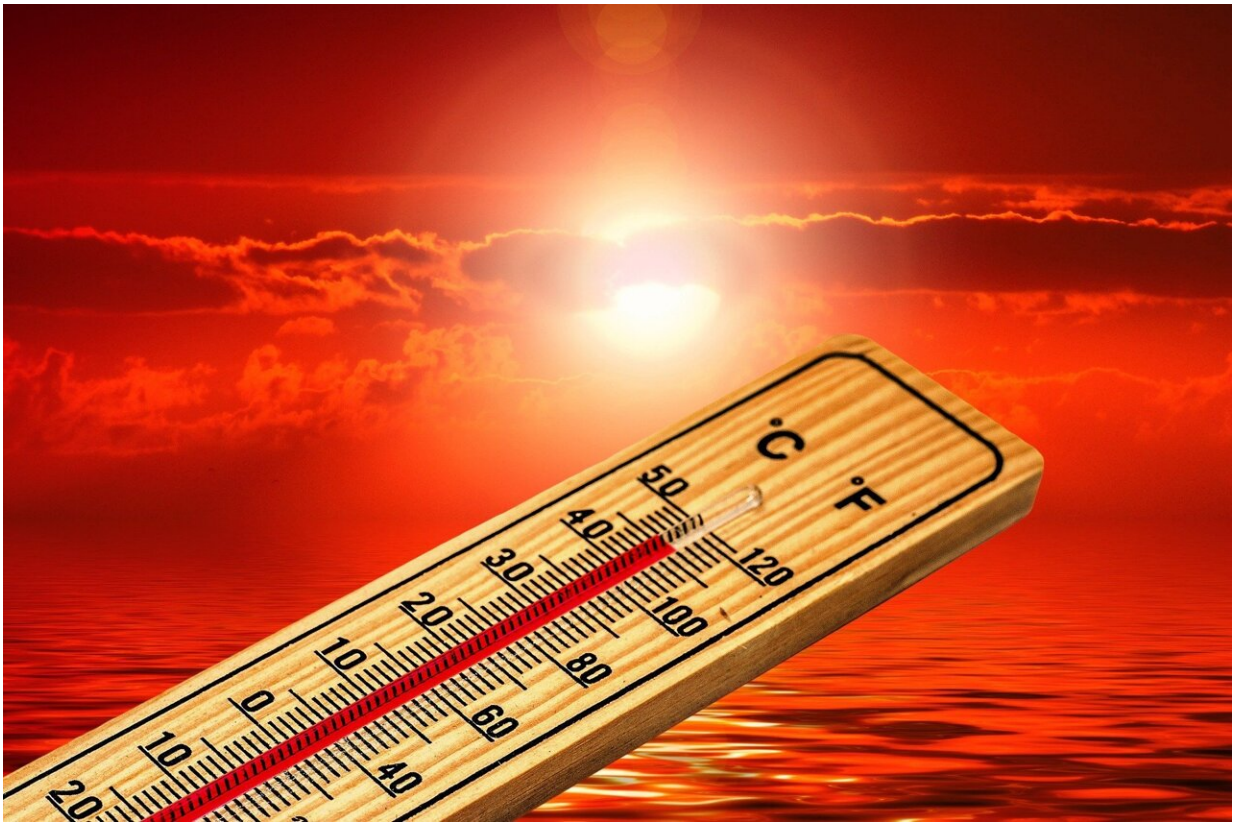


# Report exposes worsening health threats of climate change in UK

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For the first time, a new report has revealed the wide-ranging and increasing health dangers posed by long-term weather extremes in the UK, as the effects of climate change deepen.

The review, [published](#) in *The Lancet Planetary Health* and led by the University of Bristol, shows how [prolonged exposure](#) to extreme hot and cold temperatures not only carries greater risk of death but could also be linked to many other health issues, including reduced physical activity and dementia.

While the negative impact of weather extremes on heart and lung health is widely known, the study unites leading [climate scientists](#), meteorologists, public health doctors, and epidemiologists to give a more comprehensive picture of the far-reaching and interrelated implications.

The assessment highlights how more frequent and lasting weather extremes, such as [heat waves](#) and flooding, exacerbate [mental health problems](#) and the spread of infectious diseases. Long-term heat exposure can disrupt sleep, which is associated with cognitive decline and conditions such as Alzheimer's disease. Heat can also heighten levels of kidney disease and [skin cancer](#), while cold weather may result in more injuries from falls, poor mental health through isolation, joint pain, and sedentary behavior, the study observed.

Lead author Dann Mitchell, Professor of Climate Science at the University of Bristol Cabot Institute for the Environment, said, "Chiefly, this report shows the potentially very serious mortality and morbidity tolls from long-term exposures to changed weather patterns not currently captured in our climate risk assessments.

"We also do not know enough about how hotter temperatures, or continuous flooding, may interact with many different health outcomes, but we are aware of some strong links which give cause for significant concern."

Whereas previous studies focus on specific health outcomes, such as heat-mortality, this report provides a holistic assessment based on

weather extremes in the UK.

Professor Mitchell said, "The collective sum of many world-leading experts in this area means we can pool our knowledge, and use evidence from very different disciplines to give a full overview of how weather and climate patterns impact the UK population.

"For instance, warmer nights interrupt sleep patterns, which may speed up the progression of dementia. Multi-year heat stress will likely exacerbate underlying health conditions, such as kidney diseases. We need to focus on these long-term exposures to get the full picture."

The [interdisciplinary approach](#) could be used to develop an expert-based understanding of the climate-related health burden in other countries.

"Using the UK as an example, we have set the stage for a globally-complete analysis of climate and health, which will provide a much-needed update to the current estimate, which only deals with a subset of diseases, and is critically out of date," Prof Mitchell added.

Co-author Dr. Eunice Lo, Research Fellow in Climate Change and Health at the University of Bristol Cabot Institute for the Environment, said, "This expert judgment is highly valuable because it gives us an idea of the effects of long-term weather exposure on slow-onset health conditions, which have traditionally been hard to quantify in literature. With more and more data becoming available in long-running health studies, the next step is to look at these data and model their associations with long-term weather exposure, along with other factors that affect health over time."

**More information:** Dann Mitchell et al, Expert judgement reveals current and emerging UK climate-mortality burden, *The Lancet Planetary Health* (2024). [DOI: 10.1016/S2542-5196\(24\)00175-X](https://doi.org/10.1016/S2542-5196(24)00175-X)

Provided by University of Bristol

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