

Link between weather and chronic pain is emerging through an innovative national smartphone research project

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Preliminary findings from a mass participation study have indicated a link between weather conditions - specifically rain and lack of sunshine - and chronic pain.

Daily data inputted from over 9000 UK participants in The University of Manchester-led 'Cloudy with a Chance of Pain' project has been viewed at the halfway stage of the 18-month study; these early results suggest a correlation between the number of sunny days and rainfall levels and changes in pain levels.

Professor Will Dixon, who leads the study, will be speaking at the British Science Festival at 15.00 on Wednesday 7 September about this novel study and the interim findings.

Members of the public who have long-term pain record their daily pain symptoms on a special app. The app also independently captures hourly [weather conditions](#) using the smartphone GPS, thus joining pain data with real-time local [weather](#) events. The study is still open to new participants and the researchers are keen to recruit as many people as possible who are willing to track their symptoms.

At the halfway stage the research team reviewed the interim data, looking specifically at data sets collected from participants in three cities - Leeds, Norwich and London.

Across all three cities, as the number of sunny days increased from February to April, the amount of time spent in [severe pain](#) decreased. However, the amount of time spent in severe pain increased again in June when the weather was wetter and there were fewer hours of sunshine.

Will Dixon, Professor of Digital Epidemiology at The University of Manchester's School of Biological Sciences and scientific lead for the Cloudy project, said the early results were encouraging but urged more people to take part in the study in order to allow robust conclusions at the end of the study.

"Once the link is proven, people will have the confidence to plan their activities in accordance with the weather. In addition, understanding how weather influences pain will allow medical researchers to explore new pain interventions and treatments.

"To work out the details of how weather influences pain, we need as many people as possible to participate in the study and track their symptoms on their smartphone".

"If you are affected by [chronic pain](#), this is your chance to take do something personally - and easily - to lead to a breakthrough in our understanding of [pain](#)."

People interested in joining the Cloudy with a Chance of Pain project – and who have access to a smartphone – can sign up at www.cloudywithachanceofpain.com .

Provided by University of Manchester

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