

# The rain, it's plain, has no effect on pain



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**By Alyssa Meyers**

GLOBE CORRESPONDENT DECEMBER 20, 2017

Since antiquity, a belief has persisted that our joints ache more in rainy weather.

But after comparing huge databases on doctor's appointments and daily rainfall totals from weather stations across the United States, a team of Harvard University researchers has found no correlation between the two.

“It’s hard to imagine why these two things should be linked,” Anupam Jena, a health care policy professor at Harvard Medical School and the lead author of the [report](#), said in a telephone interview Tuesday. “That being said, this is an idea that millions and millions of people believe.”

To tackle the question, Jena and his team examined Medicare records from more than 11 million doctor’s appointments between 2008 and 2012 and matched them up with rainfall totals from a National Oceanic and Atmospheric Administration database.

They first looked to see whether people were going to doctors more on rainy days and found no evidence to suggest they were, said Jena, who also is a physician at Massachusetts General Hospital.

But, realizing that people would probably not be able to get an appointment the same day they felt increased pain, they analyzed data for doctor’s appointments during particularly rainy weeks as opposed to days, and found no correlation there, either. They also looked at data for doctor’s appointments in the week following intense rain. The proportion didn’t go up there, either, Jena said. “We are not saying this is not real pain,” he said. “If it’s pain, it’s pain and it should be treated as such.”

What the study suggests is that patients did not mention increased joint or back pain to their doctors at previously scheduled visits during or after rainstorms, Jena said. “Really, it is the largest-scale evidence that has been brought to bear on this kind of question,” he said of the study, published Dec. 13 in the journal BMJ.

Although his evidence is strong, Jena said, it does not necessarily mean everyone is imagining increased joint or back pain on rainy days.

“This shouldn’t be viewed as definitive evidence that rain doesn’t lead to joint pain,” he said. “It may.” Donald Redelmeier, a professor of medicine at the University of Toronto, who was not involved in the Harvard study but came to a similar conclusion in 1996, agreed. He told USA Today that it’s difficult to prove a negative, so there may be a true association that studies simply haven’t picked up.

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