Does hot weather make gastrointestinal problems worse?

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Sustained periods of hot weather may cause symptoms related to gastrointestinal conditions, such as inflammatory bowel disease, to flare up, according to a new study published in The American Journal of Gastroenterology.

It is known that high temperatures can directly affect human health given the mortality rates during heat waves. However, indirect effects, such as how disease symptoms may change in such conditions, are not well understood. Inflammatory bowel disease (IBD) and infectious gastroenteritis (IG) are diseases characterized by inflammation of the gastrointestinal tract, and whose symptoms include abdominal pain, vomiting, and diarrhea. In this retrospective study, Thomas Frei and colleagues evaluate how heat waves influence IBD and IG by analysing data from 738 IBD and 786 IG patients admitted to a hospital in Switzerland between 2001 and 2005. During this time a total of 17 heat waves were recorded. The authors found that the presence of a heat wave increased hospital admissions due to IBD flares by 4.6%, and IG flares by 4.7%, each day within a heat wave period. The data also suggests that effect of heat waves on IBD is immediate, while IG flares were more prominent after 7 days.

Although the mechanism behind these responses is unknown, the authors speculate that an increase in temperature could favor the expansion of the pathogenic bacteria and/or viruses that play a role in IG, allowing
the disease time to develop. The authors also suggest that IBD’s more immediate effects may be caused by the physical and mental stress associated with heat waves, which could trigger flares of IBD, or worsen a symptom is not yet clinically observable.

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