

1.69 million deaths attributed to extreme temperatures in 2019

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(HealthDay)—Acute heat and cold exposure can increase mortality risk

for multiple causes of death, with cold-attributable mortality exceeding heat-attributable mortality, according to a study published in the Aug. 21 issue of *The Lancet*.

Katrin G. Burkart, Ph.D., from the University of Washington in Seattle, and colleagues linked deaths to daily temperature estimates, modeled cause-specific relative risks for individual causes of death, and calculated cause-specific and total temperature-attributable burden. Cause-specific relative risks were then applied to all locations globally.

The researchers found that 17 causes of death met the inclusion criteria. J-shaped relationships with daily temperature were seen for [ischemic heart disease](#), stroke, cardiomyopathy and myocarditis, hypertensive heart disease, diabetes, [chronic kidney disease](#), lower respiratory infection, and [chronic obstructive pulmonary disease](#); the risk of external causes, including homicide, suicide, drowning, and unintentional injuries, increased monotonically with temperature. Estimates for nonoptimal temperatures ranged from 7.98 to 35.1 deaths per 100,000 in Brazil and China, respectively, with population-attributable fractions of 1.2 and 4.7 percent, respectively. In 2019, in all countries for which data were available, the average cold-attributable mortality exceeded heat-attributable mortality. Cold effects were most pronounced in China and New Zealand, while heat effects were most pronounced in China and Brazil. Globally, an estimated 1.69 million deaths were attributable to nonoptimal temperatures.

"In most regions, cold temperatures have a greater impact on health; however, our analysis finds that the harmful effects of extreme heat can far exceed those caused by cold in places where it is already hot," Burkart said in a statement.

More information: [Abstract/Full Text](#)

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