

# Will global warming heat us beyond our physical limits?

By Cheryl Katz, National Geographic

If greenhouse gas emissions are not reduced, rising temperatures and humidity wrought by global warming could expose hundreds of millions of people worldwide to potentially lethal heat stress by 2060, a report suggests.

The greatest exposure will occur in populous, tropical regions such as India, Southeast Asia, the Middle East, and Africa. But even in the northeastern United States, as many as 30 million people might be exposed at least once a year to heat that could be lethal to children, the elderly, and the sick, according to the study.

It's the first study to look at future heat stress on a global basis, says Ethan Coffel, a doctoral candidate in atmospheric sciences at Columbia University, who presented the results last week at the American Geophysical Union meeting in San Francisco. Coffel and his colleagues used climate models and population projections to estimate how many people could face dangerous heat in 2060—assuming that greenhouse gas emissions continue to rise sharply on a “business-as-usual” course.

The findings are based on forecasts of “wet bulb” temperatures, in which a wet cloth is wrapped around a thermometer bulb. Whereas standard thermometer readings measure air temperature, a wet bulb measures the temperature of a moist surface that has been cooled as much as possible by evaporation.

**Read the whole story**