

How hot is too hot? Record breaking temperatures across the world test human body heat limits

Deaths from heat are pretty common, and as the world heats up, may become more so if we don't develop a plan for extreme heat days, like the kind of warning system that usually comes before a major hurricane or blizzard. In 2019, approximately 469,000 people worldwide died from overheating, according to a paper published in 2021 in [The Lancet](#).

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Heat can kill because our bodies are made of cells contained with membranes that will, if hot enough, melt. While we think of ourselves as warm-blooded animals, biologists would call us homeothermic — we need to maintain a core temperature within a narrow range around 98 F.

Our core can get up to about 104 F for a short time without permanent damage, said Sam Cheuvront, a heat physiologist who's worked for the US Army Research Institute of Environmental Medicine. Exertion and external temperature both factor into our core temperature — and of course, so do fevers.

Our bodies cool off by sending blood to the skin, where it dissipates heat into the air. But that only works until the air temperature is about 95 F, he said, which is as hot as your skin can get.

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