

Average normal body temperature isn't 98.6 anymore, and it's getting lower, research shows

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For centuries, 98.6 degrees Fahrenheit (37 C) was said to be the average, normal body temperature. It's not.

More recently, researchers have known normal [body](#) temperature is actually lower than 98.6 and can vary by gender, size, age, time of day and other factors. But now there's also new evidence that shows we've been cooling off since the 19th century when 98.6 was established as "normal."

Research published last week in eLife, shows body temperature has not only dropped since German physician Carl Reinhold August Wunderlich's study in 1851 established the average body temperature as 98.6 degrees, but it has also dropped since the 1970s. The findings indicate that Americans' average, normal body temperature has dropped about 0.05 degrees Fahrenheit (0.03 C) per decade, based on their birth year.

"People are stuck on the 98.6 number, but that number has always been wrong," said Dr. Julie Parsonnet, one of the authors of the study and professor of medicine at Stanford University. "There's never been a real number because people vary."

But Parsonnet's research indicates there are still unknowns when it comes to the continued decrease in body temperature.

In the study, Parsonnet and other researchers looked at the temperatures of three groups: data from a study that recorded Civil War veterans' temperatures from the mid-1800s through 1930, more recent data from the 1970s recorded by the Centers for Disease Control, and temperatures of patients visiting Stanford health clinics from 2007 to 2017.

The data showed that the body temperature of men born in the 2000s is about 1.06 degrees Fahrenheit lower than men born in the early 1800s. And the body temperature of women born in the 2000s is on average 0.58 degrees Fahrenheit lower than women born in the 1890s.

Meaning, "it's not just an ancient change," Parsonnet said, indicating previous theories that advancements in thermometers or means of calculating [research data](#) are not the only possible explanations for the change.

It's unclear what exactly is causing the continued decline, Parsonnet said, or what it could mean moving forward. Some factors could be that people have grown taller and heavier, and that their metabolic rates have slowed.

And modern medicine's elimination of certain diseases, like syphilis, tuberculosis and periodontal diseases also could affect changes in body temperature, she said. When the original 98.6-degree normal was established, a significant portion of the population would've been fighting these diseases, Parsonnet said, which cause inflammation and higher temperatures.

It's important to find out why, she added, because it could affect lifespan. "We are having human cooling, and we don't know what that means, but it's good to know that it's happening."

But doctors say evidence of declining temperature is not likely to change how they treat and assess patients for fever, though Parsonnet said it emphasizes that people should pay attention to how they feel and not just the [number](#) on the thermometer.

Dr. Edward Ward, emergency medicine physician at Rush University Medical Center, said he doesn't give a lot of weight to what could be considered normal temperature, instead focusing on extremes, including above 100 degrees Fahrenheit indicating a fever and below 94 degrees indicating hypothermia.

"It's not surprising that there will be changes (in normal body

[temperature](#)) since the Industrial Revolution," he said. "As an ER doctor, I'm looking for abnormalities."

Ward also pointed out that there's "a difference between having what is medically considered a fever and feeling feverish. If someone is normally 96 and then suddenly they're 99, they probably feel uncomfortable."

That can indicate illness and the need for medications like acetaminophen or ibuprofen, especially for [higher temperatures](#) that indicate influenza, he said.

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