



PREGNANCY

How Climate Change Is Affecting Pregnancy

Pregnant people and those thinking about having kids are being hit hard by the recent rise in climate disasters. Here's why their concerns are valid and what experts suggest.

By **Bridget Shirvell** | Published on June 15, 2022



PHOTO: ALEX SANDOVAL

Michelle Uberuaga, a mom in Montana, gave birth to her third child in 2020, but throughout her pregnancy she worried about a big issue: wildfires. Over the last four decades, Uberuaga's home state has seen a greater percentage increase in the number of large fires than any other state in the



an increased risk of wildfires.

"I definitely thought about how climate change and wildfires would impact my pregnancy and infant," says Uberuaga. "I was concerned that if I went through my first trimester during wildfire season, it would have a negative impact on my baby's development."

She had several conversations with her OB-GYN about how wildfire smoke could impact her baby in the womb and after birth. "Climate pollution and the threats of extreme weather intensify the anxious emotions women already feel while pregnant," says Uberuaga, who is also the executive director of a community-based conservation group, [Park County Environmental Council](#), and the Montana field consultant for [Moms Clean Air Force](#), a community of parents that seek to address air pollution.

She is far from alone in her fears. News of people choosing to have fewer children or not having kids at all because of climate change has dominated headlines recently. But how does climate change actually impact maternal and fetal health?

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In February 2022, the [Intergovernmental Panel on Climate Change \(IPCC\)](#) released the sixth assessment report from its Working Group II, focused on climate impacts, adaptation, and vulnerabilities, including a section on the risks pregnant people are facing and will encounter as the climate crisis intensifies. According to the report, evidence suggests that heat is associated with higher rates of preterm birth, low birthweight, stillbirth, and neonatal stress, while other extreme weather events have been associated with reduced access to prenatal care.

"The research is pretty clear: climate disasters such as cyclones and wildfires pose threats to pregnant people and their unborn babies," says Kenosha Gleaton, M.D., a board-certified OB-GYN and a medical advisor at [Natalist](#), a wellness company that provides fertility and pregnancy products.

For example, wildfire smoke has been linked to pregnancy complications,



and emotional health of expecting parents as well," adds Dr. Gleaton. A 2021 study published in the *National Library of Medicine* suggests pregnant and postpartum people who have experienced a wildfire are vulnerable to developing post-traumatic stress disorder (PTSD)-like symptoms.

Disproportionate Impacts of Climate Change

In developing countries, the most significant threat of climate change is often malnutrition. "In developing countries, many rely on the stability of the weather and climate and rain to produce their foods," says Dana Ellis Hunnes, Ph.D., M.P.H., R.D., an assistant professor with the Fielding School of Public Health at UCLA and senior dietitian at the Ronald Reagan UCLA Medical Center. Dr. Hunnes, who spent time in 2011 studying climate migration and food insecurity in Ethiopia, says, "When they are unable to grow a sufficient amount of food, these women may need to migrate and that can decrease, even further, their ability to get enough nutrients."

Although these issues will be felt more acutely in developing countries, parents and pregnant people in the U.S. and other developed countries are not immune—especially in terms of air pollution and extreme heat. What's worse: these climate issues are becoming more unpredictable, for example, the unprecedented heat wave that hit the Pacific Northwest from late June to early July 2021, which killed more than 1,000 people.

"I was lucky to have three healthy children and I did my best to keep them protected from wildfire smoke while they were tiny," says Uberuaga. "But many mothers don't have the ability to plan a pregnancy or the ability to avoid harmful climate impacts like extreme heat and wildfire smoke."

The issues disproportionately impact families in lower-income households as they tend to live near farming operations or in air-polluted cities, and often have to work in on-site jobs without maternal benefits and opportunities for pumping or breastfeeding. They also face challenges gaining access to food and prenatal vitamins.

"Communities of color are [also] disproportionately impacted by pollution,



to remediate the impacts of pollution and climate change in daily life," says Kristin Liam Kali, a Seattle-based midwife and author of *Queer Conception: The Complete Fertility Guide for Queer and Trans Parents-To-Be*.

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In 2020, the *Journal of the American Medical Association (JAMA)* reviewed recent studies linking air pollution and extreme heat to preterm birth, low birth weight, and stillbirth. Nineteen of the 24 reviewed studies found an increased risk of preterm birth because of air pollution, 11 of those found an average 11.5% increase, and eight found an increased risk specifically for Black pregnant people.

On top of that, pregnant people are already more likely to suffer from heat exhaustion or heat stroke because the pregnant body has to work harder to cool itself. The rising temperature each decade is increasing this risk. "Extreme heat may cause your internal body temperature to rise, which has been linked to birth defects and other reproductive problems," says Dr. Gleaton.

Yet, despite the studies on how climate change affects maternal and fetal health, traditionally, many medical professionals have not received much training on climate change and how it affects pregnancy and an unborn child.

"We know that climate change is literally making us sick, and the health effects of pollution and environmental toxins are particularly dangerous for birthing people and infants," said Senator Cory Booker in a statement announcing he is co-sponsoring a bill that would fund training for medical professionals to identify risks of climate change on pregnant patients. "The Protecting Moms and Babies Against Climate Change Act is an important step in addressing this critical issue of environmental and health justice and ensuring that pregnant people, new moms, and their infants are protected from the effects of climate change."

And what about fertility? There still isn't much research on how climate change and heat may impact on fertility, but experts are paying attention.



...become more difficult to determine later, yet the drivers of this association are unclear," says [Audrey Gaskins](#), Sc.D., assistant professor of epidemiology at Emory University's Rollins School of Public Health Emory University whose research focuses on understanding how environmental, dietary, and lifestyle factors impact fertility.

While it's not yet known if or how rising temperatures may affect ovarian function, understanding if there is a connection could have important implications—not just for human health. "Any associations between ambient temperature and female fertility would also have important implications for future population size and structure, an essential input for models estimating the health burdens associated with climate change," says Dr. Gaskins.

What Hopeful Parents Can Do

The risk of climate change on pregnant people can understandably make parents-to-be anxious. While the risks pregnant people face now will increase unless we can mitigate the worst of the climate crisis, there are a few things people can do to protect themselves now.

Implement health tips into your daily life

Don't forget about health advice you've likely been hearing your whole life. "Stay hydrated, drink cool water, and make sure any physical activity is done in the coolest parts of the day," advises Dr. Hunnes. And if you live in or near a place with high levels of air pollution, it's important to keep windows closed and use an air conditioner (or fan) or air purifier, adds Dr. Hunnes.

If someone wants to take extra precautions, face masks do offer some protection against air pollution but, as with wearing masks to prevent the spread of COVID, not all masks are created equal. N95, KN95, or FFP2 masks have all been found to [reduce exposure to air pollution](#), but you need to make sure that they fit well and take into account how long they are worn.



Limit exposure to toxins

Make it a point to limit your exposure to other toxins. More and more studies are coming out about the effects of plastic chemicals in our drinking water, food supply, on our health, and on fetal health.

"The chemicals in plastics which are leaching into our bodies can wreak havoc with fertility and fetal health as it crosses the placenta into the baby's bloodstream," says Dr. Hunnes, who recommends people concerned about toxins get plastic out of their lives, use a water purifier, and eat more plants.

These are steps experts say health care professionals should also share with all their patients. "Pregnancy care providers need to educate people about ways to avoid environmental toxins the same way we tell people to take prenatal vitamins and avoid smoking," explains Kali.

RELATED: [I'm a Mom and a Climate Change Activist: Here's How I Decrease My Family's Carbon Footprint](#)

Speak with your medical providers

Don't be afraid to speak with your medical provider about any concerns you have. For instance, ask about what dietary changes you can make if you're worried about the effects of plastics or what face masks you can wear to reduce your exposure to air pollution and even when and if you should stay inside if you live somewhere prone to wildfires.

The Bottom Line

Parents-to-be worried about climate change can mitigate risks by adding simple health tips into their daily lives, eliminating toxins, and speaking with medical providers about their concerns. While there are myriad risks pregnant people are facing now and will face in the future unless we can get climate change better under control, it is possible to have a healthy pregnancy and child.



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