Feeling the Burn: Extreme Heat in Pregnancy

Arizona is HOT, especially in the summer. I knew this when I moved to Tucson almost a decade ago. Since then, I have had two pregnancies while living in Arizona. I was lucky not to have to spend the last weeks of pregnancy and first weeks with my newborn in the summer heat.

Of course, Arizona is not the only place experiencing hot weather. 2023 was the planet's warmest year on record, according to the National Oceanic and Atmospheric Administration. Temperature records have already been broken in 2024, and extreme heat is becoming more commonplace. It is important to understand how extreme heat can affect health in the general population, and for us at MotherToBaby, how high temperatures can specifically affect people who are pregnant. For more insight on this issue, we turned to Dr. Christina Han with our partner, the Society for Maternal-Fetal Medicine.

What is extreme heat?

Extreme heat has been defined as "a period of high heat and humidity with temperatures above 90 degrees for at least two to three days." (Ready.gov). According to Dr. Han, "extreme heat can lead to health issues for anyone, including heat rash, sunburn, heat cramps, heat exhaustion or heat stroke. These environmental changes also increase the rates of violence and exposure to pollution. Some groups of people are more likely to be affected by extreme heat, including people who are pregnant."

What is hyperthermia?

Hyperthermia is a rise in body temperature that happens when the body absorbs more heat than it releases. One of the most common causes of hyperthermia is heat stroke. Fever, extreme exercise, or use of hot tubs or saunas can also increase the chance of hyperthermia.

Being pregnant during extreme heat can increase the chance of developing heat stroke, heat exhaustion, or other heat-related illness. In extreme heat, the body has to work harder to keep cool for two. When the body is unable to cool itself properly, there can be an increased chance of hyperthermia.

What are the concerns with extreme heat and pregnancy?

Studies have reported a small increased chance for neural tube defects (NTDs) in babies of people who had high fevers lasting 24 hours or longer before the 6th week of pregnancy. A few studies have reported a small increased chance for other birth defects when fever or hyperthermia happen in early pregnancy, especially if the fever is untreated. Other studies have not found a higher chance for birth defects when a person experiences hyperthermia early in pregnancy.

People who are pregnant also need to drink more water to avoid dehydration. Chronic dehydration can affect pregnancy outcomes. One study suggests that chronic dehydration can affect newborn weight, length, and head and chest circumference. Some studies have reported associations between high temperatures during pregnancy and a higher chance of preterm birth, low birth weight, and stillbirth.

What are some signs of heat-related illness?

Heat stroke: Body temperature of 103°F or higher; hot, red, dry, or damp skin; headache; confusion, dizziness; nausea; passing out.

Heat exhaustion: Heavy sweating; cold, pale, and clammy skin; nausea/vomiting; dizziness, headache, muscle cramps; tiredness/weakness; passing out.

Heat-related illnesses can sometimes be an emergency. Anyone who thinks they are having a medical emergency should seek care right away. For more information on when to seek medical help, visit the Centers for Disease Control and Prevention (CDC) page here: https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html.

Dr. Han also shared some general tips for dealing with extreme heat during pregnancy:

- Stay cool as much as possible, both indoors and outdoors
- Avoid peak sun hours if you must be outside
- Avoid or minimize strenuous activities
- Wear appropriate clothing such as hats and loose lightweight clothing
- Avoid alcohol and limit caffeine
- Wear sunscreen
- Use caution when engaging in strenuous activities; be sure to take breaks, drink water, and get plenty of rest.
- Check the local news for heat warnings and health/safety tips

Find more information from CDC on preventing heat-related illness here: https://www.cdc.gov/extreme-heat/prevention/index.html.

Dr. Han's final tip: Don't forget to talk with your provider! "Your healthcare provider can help you find resources and ways to protect yourself and your family. Managing exposure to extreme heat is important for everyone's health, including those who are pregnant."

MotherToBaby specialists are also available to talk with you about exposures before or during pregnancy. Best of luck staying cool out there!

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at MotherToBaby.org.

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