

PROMOTING HEALTHY ENVIRONMENTS FOR CHILDREN

Climate Change



KEY POINTS

The earth's climate has progressively warmed in the last century.

- Human activities, and especially the burning of fossil fuels, have contributed to observed global warming.
- Reliance on fossil fuels drives climate change and produces particulate matter (PM) that contaminates the air. PM is associated with adverse health effects. Transitioning to clean energy will improve air quality, improve health outcomes, and mitigate climate change.
- Children, and particularly those living in low wealth households or are otherwise socially disadvantaged, may be more likely to have their health put at risk from extreme events such as floods, heat waves, and hurricanes due to greater exposure and fewer resources available to build resilience.
- Pediatricians can take action to protect their practices and their patients from the effects of climate change and advocate for greater adoption of cleaner forms of energy.

CLINICAL GUIDANCE

Children under 5 may bear as much as 88% of the global burden of disease from climate change.

- Extreme events such as heatwaves, hurricanes, severe storms, wildfires, and droughts place children at risk. These events can result in injury and death, loss or separation from caregivers, exposure to infectious diseases, increased risk of exposure to chemicals and biological contamination, exposure to mold, and mental health consequences such as posttraumatic stress disorder (PTSD), toxic stress, depression, and adjustment disorder.
- Heat waves can cause heat related illnesses and worsen chronic conditions.
- Children may lose homes and access to school after extreme weather events and wildfires.
- Extreme weather events can cause food and water insecurity, and increased risk for water- and food-borne illnesses.
- Many children and their families may have insufficient resources following weather-related disasters.
- Global warming has expanded the range of insect disease vectors, including the tick that transmits Lyme disease.
- Heavy downpours increase risk of waterborne disease outbreaks, especially among children who rely on private well water.
- Wildfires produce immense amounts of smoke that can reduce air quality and pose health risks for all children, and especially for those with respiratory diseases such as asthma.
- Global climate change has near- and long-term impacts on child health and wellbeing.

- Heat, drought, floods, and fires make growing food more difficult and increase risks of nutritional deficiencies in children.
- Children's optimal development occurs with stable families, schools, neighborhoods, and communities. Climate change threatens these foundations of children's mental and physical health and well-being, which places children at risk for long-term physical and mental health issues.

PREVENT HARMS FROM CLIMATE CHANGE IN CHILDREN

- Help families prepare for extreme heat, reduced air quality, extreme weather events, and [vector-borne illness](#), which may include
 - Identifying means of avoiding extreme heat.
 - Encouraging development of family escape plans from wildfire and extreme weather events.
 - Advising on prevention of mosquito and tick bites.
 - Educating families about the US EPA's [Air Quality Index](#).
 - Acknowledging eco-grief and normalizing the need for mental health services.
- Make your office a model of sustainability. Incentivize carpooling, minimize waste, and explore opportunities for energy efficiency in building operations as well as renewable energy.
- Learn about plant-based diets and how decreasing meat consumption can help mitigate climate change and improve health.

CHILD HEALTH BENEFITS OF CLIMATE ACTION

Many of the most problematic child health issues, including asthma, obesity, and mental and neurodevelopmental disorders, may benefit from climate action.

- Reducing fossil fuel combustion reduces air pollution that contributes to as many as 1 in 5 children nationally developing asthma.
- Greater use of active transportation to school can promote healthier BMIs.
- Plant forward diets, especially those with limited processed meat, generate fewer greenhouse gas emissions that cause climate change and can promote better health outcomes.
- Greenspace in cities, which can lower energy consumption in buildings, improve air quality, and reduce urban temperatures and runoff, has been associated with better mental health and physical health in children.

As advocates for children, pediatricians have a critical role to play in the societal response to climate change.

- Pediatricians are trusted experts in child health. Modeling sustainable lifestyles can influence coworkers and patients.
- Post and distribute culturally and linguistically competent educational materials and talk with families about the relationship between climate change and child health, and actions that reduce climate change.
- Support youth, medical students, residents, and medical societies in child health advocacy through actions that address climate change.
- Advocate for more sustainable practices in healthcare at hospitals and clinics.
- Support the inclusion of climate and health in medical and pediatric residency curricula.
- Offer expert testimony, speak at hearings, and write op-eds on health threats from climate change.

FOR MORE INFORMATION

The following resources offer additional information regarding climate change:

- [Climate Change](#) – AAP Resources
- [Climate Checkup for Children’s Health: Little Changes With Big Impact](#) – HealthyChildren.org
- [Pediatric Environmental Health, 4th Edition](#) – AAP Policy Manual
- [Climate Change Toolkit](#) – American College of Physicians
- [Practice Greenhealth](#)
- [My Green Doctor](#)