

Living in a high-crime neighborhood may worsen children's asthma

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Exposure to violent crime may exacerbate asthma in children, according to a study to be presented Saturday, May 1 at the Pediatric Academic Societies (PAS) annual meeting in Vancouver, British Columbia, Canada.

Emerging research suggests that violence and stress may influence the severity of a child's asthma. To explore this association further, researchers conducted a study of 561 [children](#) ages 8-14 years in Chicago who had been diagnosed with asthma by a physician.

Investigators interviewed caregivers to determine their [stress level](#) and exposure to violence. They also reviewed data from the Chicago Police Department detailing the incidence of [violent crime](#) in the communities where the children lived.

Results showed that 41 percent of the children had moderate or severe asthma, and 59 percent had intermittent or mild asthma. After adjusting for the child's age, gender, family history of asthma and [socioeconomic status](#), children were nearly twice as likely to have moderate/severe asthma if their caregivers reported high levels of stress or if the incidence of violent crime was high in their neighborhood. After adjusting for caregiver stress, a high incidence of violent crime still was associated with more severe asthma in children.

"To our knowledge, this study is the first to evaluate the impact of both perceived and actual violence on childhood asthma," said co-author Ruchi S. Gupta, MD, MPH, a researcher from Children's Memorial Hospital in Chicago. "Based on our findings, it seems that the risk of severe asthma is better predicted by the actual incidence of violent crime in a community rather than violence perceived by the caregiver."

The findings suggest that actual violence may be representative of broader social problems known to impact asthma, such as a poor environment, or

may be contributing to asthma severity in a way yet to be explored, said Dr. Gupta, who will be presenting the study findings at the PAS meeting with Elizabeth E. Springston.

"When caring for a child with asthma, physicians must consider the environment in which a child lives," Dr. Gupta said. "As health care professionals, we have an obligation to recognize the social barriers facing our patients in managing their [asthma](#)."

Provided by American Academy of Pediatrics

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