

# Children with asthma likely born in Toronto area with high air pollution

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Children who develop asthma in Toronto are more likely to have been born in a neighbourhood that has a high level of traffic-related air pollution, new research suggests.

Researchers identified a number of "clusters" where higher numbers of children who developed [asthma](#) were born, including Parkdale-Little Portugal, west of downtown Toronto; the neighbourhood where the Don Valley Parkway connects to the westbound Gardiner Expressway; and parts of Scarborough, including where the Don Valley Parkway and Highway 401 intersect and around Cliffside-Scarborough Village.

"In this study, high clusters of atopic asthma [asthma related to allergies] were found in children who were born in parts of the southwest, south and northeast of Toronto," said lead author Dr. Ketan Shankardass, a social epidemiologist with the Centre for Research on Inner City Health of St. Michael's Hospital. "Such clusters support the notion that early life factors at the neighbourhood level are relevant to the development of childhood asthma."

Shankardass said 70 percent of the children involved in the study had moved from their birth neighbourhood, further suggesting the air pollution during pregnancy and shortly after birth was related to developing asthma later in childhood.

While exposure to traffic-related air pollution helped explain some of these clusters, Shankardass said air pollution isn't necessarily acting

alone in causing childhood asthma, or else they would have found similar clusters along all the main thoroughfares in Toronto.

His study was published online today in the journal *Health & Place*.

Shankardass said other risk factors that could be associated with [childhood asthma](#) include the relatively low socioeconomic status in Parkdale-Little Portugal and Scarborough, which have average median incomes of \$51,767 and \$52,944, respectively, compared to \$65,047 in the rest of the greater Toronto area.

In addition, there may be persistent [air pollution](#) in Scarborough from sources other than traffic, such as factories. In 2006, the average area of industrial land-use in Scarborough (62,715 square metres) was far higher than the rest of the GTA.

The Parkdale and Little Portugal neighbourhoods also contain some of the city's oldest housing stock (the average percentage of pre-1946 housing in Parkdale-Little Portugal is 55 percent, compared to 4 percent in Scarborough and 19 percent in the rest of the GTA). That includes many large homes that have been converted into small, crowded apartment buildings and that are poorly maintained, meaning there might be indoor environmental hazards that were not completely accounted for in the study, such as cockroaches and mold.

Shankardass is also an assistant professor in [health](#) sciences at Wilfrid Laurier University

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Provided by St. Michael's Hospital

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