

Greener neighbourhoods produce bigger babies

New study examined data from more than 64,000 births and analyzed satellite imagery

BY RANDY SHORE, VANCOUVER SUN SEPTEMBER 7, 2014



Mothers who live in Metro Vancouver's greenest neighbourhoods tend to deliver bigger babies and are more likely carry a baby to term than those who live in less green parts of the city, according to a new study published in the journal *Environmental Health Perspectives*.

Photograph by: LOIC VENANCE, AFP/Getty Images

VANCOUVER -- Mothers who live in Metro Vancouver's greenest neighbourhoods tend to deliver bigger babies and are more likely carry a baby to term than those who live in less green parts of the city, according to a new study published in the journal *Environmental Health Perspectives*.

Using data from more than 64,000 births and analysis of satellite imagery, researchers found that babies from the greenest residential spaces — those with access to trees and grass within 100 metres — were up to 45 grams heavier, had a reduced likelihood of preterm birth and were less likely to be small for gestational age, according to the lead researcher Michael Brauer, a professor in the School of Population and Public Health at the University of British Columbia.

The positive effects of greenness persist even when the researchers control for other factors known to influence gestation and birth weight, including air pollution, noise, income, access to parks, opportunities for physical activity and the walkability of the immediate neighbourhood.

"We know from other studies that birth outcomes are influenced by pollution and noise in a negative

way, so we went looking for something (in the urban environment) that is healthy,” said Brauer.

Cities in most of the developed world are designed to accommodate the automobile, which usually results in relatively barren, noisy and polluted environments. Brauer’s study seeks to quantify the benefits of a different approach to urban planning.

“If we didn’t design for automobiles and instead designed for people, the hope is that we would be healthier,” he said. “With the high cost of health care, modifying urban design features such as increasing green space may turn out to be an extremely cost-effective strategy to prevent disease.”

While 45 grams isn’t a lot of extra weight for one healthy infant, the effect of increased birth weight across the entire distribution of births moves thousands of babies from birth weights that are dangerously low into a healthier range.

“From a medical standpoint, those are small changes in birth weight, but across a large population, those are substantial differences that would have a significant impact on the health of infants in a community,” said co-author Perry Hystad, assistant professor in the College of Public Health and Human Sciences at Oregon State University.

Even in an urban area as rich in green space as Metro Vancouver the benefits conferred by the very greenest neighbourhoods compared with the least green neighbourhoods were substantial, including a 20-per-cent reduction in severely premature births and 13 per cent fewer moderately pre-term births.

The mechanism by which greenness translates into healthier babies is not exactly clear, but greener environments are known to facilitate social connectedness and reduce blood pressure, heart rate and stress-related hormones, according to the study, the third in a series of similar inquiries on the health impacts of urban spaces.

“Even when we eliminate the noise and the pollution and (a measure) of physical activity, we still see this benefit of green space,” he said. “What we don’t know is whether it is enough to see a tree out your window or do you have to have a park across the street where you chat with your neighbours.”

rshore@vancouversun.com

Blog: [vancouversun.com/green man](http://vancouversun.com/green-man)

Twitter: @theGreenManBlog

[Click here](#) to report a typo or visit vancouversun.com/typo.

Is there more to this story? We'd like to hear from you about this or any other stories you think we should know about. [CLICK HERE](#) or go to vancouversun.com/moretothestory

© Copyright (c) The Vancouver Sun