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Kids With Grass Underfoot May Be Less at Risk for Being Overweight

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Children in population-dense regions who live around green parks and lawns may be less likely to be overweight, according to a study appearing in the March/April issue of the American Journal of Health Promotion.

The researchers based their study on a long-held theory that environmental conditions can influence the growing obesity epidemic by affecting physical activity and nutrition. They concluded that densely populated neighborhoods with more plants and grass were associated with a reduced risk of being overweight among children, and suggested it was because access to parks and outdoor play spaces increased their activity levels.

"I was intrigued by our results," said lead author Gilbert Liu, M.D., of the Children's Health Services Research Program at Indiana University School of Medicine. He said that while his urban neighbors may see youth "playing kick-the-can in the middle of the street ... most would agree that places in the city that have shade trees or grass or nice landscaping make physical activity more enjoyable and likely."

The authors studied 7,334 children between the ages of 3 and 18 residing in Marion County, Indiana, and determined whether they were overweight by calculating their body mass index (BMI). They then looked at the amount of green landscapes nearby and the proximity of each child's home to food retail – fast food restaurants, convenience stores, and supermarkets –using satellite imagery and geographic information.

The researchers did not evaluate the children's exercise behaviors, but reported that those who lived in higher population density regions with less greenery were more likely to have a BMI above the 85th percentile, putting them "at risk for overweight." By comparing high population areas with low population areas,

they found that as the difference between the areas' "vegetation index" increased, so did the odds of being overweight.

Making the connection between the presence of green space and obesity can be tricky, said Thomas Glass, Ph.D., of the Department of Epidemiology at Johns Hopkins Bloomberg School of Public Health.

"We may say that green spaces are associated with kids' activity level, but we really don't know for sure," Glass said. "People who live in green spaces areas versus not might be different in a lot of ways that have nothing to do with the presence of green space. There are a lot of parks in Baltimore, for example, but you can point to a lot of factors, such as crime, to explain why you find those parks empty of kids playing."

