



Children Living Near Green Spaces Are More Active

Science Daily (Mar. 12, 2009) — Children at high risk of obesity who live near parks and recreation areas are apt to participate in walking activities more often, researchers reported at the American Heart Association's Conference on Nutrition, Physical Activity and Metabolism.

In a Canadian study, the presence of nearby parks was strongly associated with girls walking to school and boys engaging in leisure walking. For every additional park located within a half mile of their home, the likelihood of walking to school more than doubled among girls and leisure walking by boys increased by 60 percent. Results were similar even after taking into account family income and the average level of education in the neighborhood, an indicator of area disadvantage. "There was a strong association between walking and the number of nearby public open recreational spaces, including neighborhood parks, playgrounds and sports fields," said Tracie A. Barnett, Ph.D., lead author of the study and a researcher at Sainte-Justine Hospital Research Center and Université de Montréal in Montreal, Canada. "We were able to relate the proximity and number of parks to how often children aged 8-10 years walked. This is important because active transportation is a promising public health strategy for increasing overall physical activity, and for helping to curb the obesity epidemic. We know that walking to school has been decreasing steadily for the past 30 years; concurrent increases in overweight and obesity suggest that these two phenomena may be linked."

The results are based on the first 300 families enrolled into the Quebec Adipose and Lifestyle Investigation in Youth (QUALITY) study in which researchers are following over 600 children and both biological parents to study the natural history of excess weight and cardio metabolic risk in children.

"Obesity in children and adolescents has tripled in the past 20 or so years," Barnett said. "Although obesity has many causes, this relatively sudden and steep increase suggests that the drivers of the obesity epidemic are largely environmental rather than biological or genetic in nature."

In this study, researchers examined the relationship between park availability and proximity, and walking. All the children were considered at high risk for future obesity because at least one of their parents was obese. Clinic visits determined body fat distribution, fitness, metabolic, genetic/familial, and behavioral factors that could lead to obesity. Both parents and children completed questionnaires during the clinic visit, and children provided a seven-day recall of walking for leisure and their usual methods of getting to and from school. Location of parks was obtained using a geographic information system.

In this sample, researchers found:

- One-third of the children walked to and from school.
- Parks located within approximately one half mile had the strongest association with walking in this age group.
- A greater number of parks were associated more with purpose-driven walking in girls and with leisure walking in boys.

"Parks may benefit girls and boys differently, but are associated with increased overall walking for both," said Barnett, who is also assistant professor of Social and Preventive Medicine at the Université de Montréal. "In the past few decades we have become more sedentary due to the increased use of labor-saving devices, motorized transportation, television and computers," she said. "In addition, children are spending more time inside, yet we know that spending time outdoors is an important determinant of activity."

In future urban improvements, consideration must be given to parks, outdoor recreational areas and walking or cycling infrastructure in order to increase active living. Equally important is that the parks and recreational areas are well maintained and are safe." The cross-sectional study provided a "snapshot" look at the environment, but researchers will be following these families over the next 10 years. The researchers plan to follow the children until age 18 to determine the effects of their environments on the development of obesity.

While this study does not provide specific information on the mechanism by which the presence of parks might affect activity in other places, it does provide useful data on how differences in urban environments may translate into differences in lifestyle activities, researchers said. As the children become teenagers, the environment will evolve, especially as they attain more freedom and become more independent, Barnett said. "Factors that influence their health and lifestyle behaviors will change and these will need to be reassessed."

An American Heart Association statement released in June of 2008 says, "walkable" neighborhoods, with adequate sidewalks and areas for physical activity, can play an important role in combating the rise in obesity rates by making it easier to get daily exercise.

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