

- Parks / Gardens / Mental health

Green spaces and stronger bones

Living near parks and gardens could even limit fracture risk later in life, a study finds.

The Star Malaysia · 24 Jan 2024 · 6

SCIENTIFIC research is consistently extolling the virtues of living close to green space, especially for city dwellers, with numerous benefits for mental health.



But parks, gardens, squares and other green spaces could also benefit the physical health of young children. A new study from researchers in Belgium reveals that children living near such areas appear to have stronger bones.

Exposure to green space early in life could play an important role in children's bone health, and may even limit the risk of fractures and osteoporosis later in life, reveals a new study led by researchers in Belgium.

"These findings highlight the importance of early-life exposure to residential green space on bone health during critical periods of growth and development, with long-term implications," write the authors of the study, published in the medical journal *JAMA Network Open*.

Numerous studies have looked at the influence of nature on the health of those who benefit from it on a daily basis. Recent studies have reported a host of benefits for mental health and well-being, while others have shown that green space can help limit the use of medication or promote physical activity.

Nevertheless, this is the first time that such research has looked at the impact of residential green space on children's bone health.

For the purposes of this research, scientists from Hasselt University, Belgium, analysed data from 327 children aged four to six years from the prospective birth cohort study

'Environmental Influence on Ageing in Early Life' (Environage), initiated in 2010, and followed up between Oct 1, 2014, and July 31, 2021.

In addition to data on the health and lifestyle of mother and child, the scientists also took account of residential addresses. These were geocoded, while the percentage of green space was determined on the basis of high green space (above three metres), low green space (below or equal to three metres), as well as the sum of the two, in several radii ranging from 100 metres to 3,000 metres around the residence.

The verdict? Exposure to residential green space early in life was associated with better bone health in the children included in the study.

Stronger bones

In detail, the study reveals that having around 25% more green space (+23.2% high green space and +25.2% total green space) within a 1,000-metre radius was associated with a 67% lower risk of the children having low bone density – in other words, being in the lowest 10% of bone densities. Similarly, children enjoying around 20% more green space within a 500-metre radius were likely to have higher bone mineral density.

These results are significant, since bone mineral density is an important indicator of the risk of fractures and/or osteoporosis later in life. "The stronger the bone mass is during childhood, the more capacity you have for later in life. So the real public health message from this study is that urban planners can make stronger bones of children, and that has long-lasting consequences," said Professor Tim Nawrot of Hasselt University, who was part of the study team, quoted by The Guardian. This research could lead to new strategies for preventive action.

"This study highlights the urgent need to raise awareness among policymakers on the importance of conserving and expanding residential green spaces to maximise bone mineral density during crucial periods of growth and development. The promotion of such preventive strategies might decrease fracture and/or osteoporosis risk later in life, resulting in financial, physical, and psychological benefits for the individual and the community," the researchers' paper concludes. – AFP Relaxnews

The real public health message from this study is that urban planners can make stronger bones of children, and that has long-lasting consequences.

Tim Nawrot