

# Gardening provides high-to-moderate physical activity for children

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Gardening, often considered to be an activity reserved for adults, is gaining ground with children as new programs are introduced that promote gardening's "green" attributes. Physical benefits of getting out in the garden have also been reported for adults and seniors—now, a study from researchers in South Korea finds that children, too, can reap the benefits of digging, raking, and weeding. Researchers Sin-Ae Park, Ho-Sang Lee, Kwan-Suk Lee, Ki-Cheol Son, and Candice Shoemaker published the results of their study in *HortTechnology*. They say that the data can inform future development of garden-based programs that help engage children in physical activity and promote healthy lifestyles.

The research team studied 17 children as they engaged in 10 gardening tasks: digging, raking, weeding, mulching, hoeing, sowing seeds, harvesting, watering, mixing growing medium, and planting transplants. The study was conducted in South Korea in two garden environments—a high tunnel, and an outdoor area. The children visited the gardens twice, and each child performed five different tasks during each visit. They were given 5 minutes to complete each gardening task, and were allowed a 5-minute rest between each task. During the study, the children wore portable telemetric calorimeters and [heart rate monitors](#) so that researchers could measure their oxygen uptake, energy expenditure, and heart rate.

Results showed that the 10 gardening tasks represented moderate- to high-intensity [physical activity](#) for the children. Digging and raking were categorized as "high-intensity" physical activities; digging was more

intense than the other gardening tasks studied. Tasks such as weeding, mulching, hoeing, sowing seeds, harvesting, watering, mixing growing medium, and planting transplants were determined to be "moderate-intensity" physical activities.

The researchers said that the study results will facilitate the development of garden-based exercise interventions for children, which can promote health and physically active lifestyle. They added that the data can also be useful information when designing garden-based therapeutic interventions for [children](#) with low levels of physical ability.

**More information:** The complete study and abstract are available on the ASHS *HortTechnology* website: [horttech.ashspublications.org/...nt/23/5/589.abstract](http://horttech.ashspublications.org/...nt/23/5/589.abstract)

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